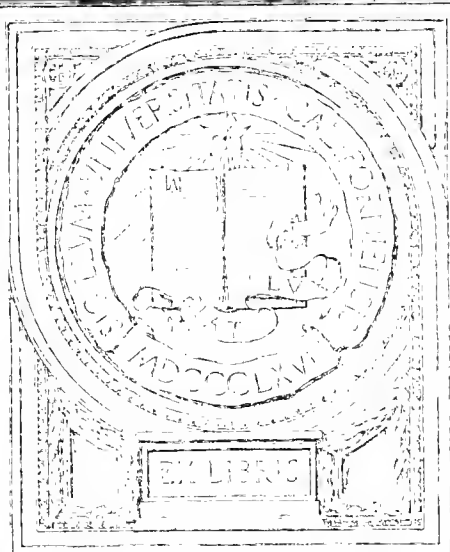


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Special Bulletin

New York

State Department of Health

EUGENE H. PORTER, M.A., M.D., D.P.H.

Commissioner of Health

CONFERENCE ON INFANT WELFARE

HELD AT THE STATE CAPITOL

Albany, N. Y., June 12, 1913

"No duty of the State is of greater importance than protecting the life and promoting the health of its citizens."

—Gov. William Sulzer



"To cause the citizen to do the things he can and ought to do, and then to do for him the things he cannot do but which should be done, is the duty of the State."

—Eugene H. Porter

State Commissioner of Health

"THE FIRST WEALTH IS HEALTH."—Emerson

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Division of Publicity and Education, New York State Department of Health
Albany

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New York State Department of Health

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SAVE THE BABIES!

COMPARATIVE DEATH RATES

for some principal

AMERICAN CITIES 1912

ST. LOUIS	97.3	14.58
TACOMA	97.9	9.59
SAN FRANCISCO	100.0	14.24
PHILADELPHIA	102.4	12.80
CINCINNATI	103.1	16.93
NEW YORK CITY	105.3	14.11
LOUISVILLE	108.1	15.39
SIOUX FALLS	112.8	14.10
BRIDGEPORT	113.0	13.70
BOSTON	119.4	16.16
WHEELING	124.1	17.55
PITTSBURGH	126.7	15.90
BUFFALO	127.2	14.66
WASHINGTON	128.3	17.73
DETROIT	132.7	15.09
JACKSONVILLE	133.6	18.10
INDIANAPOLIS	134.2	15.08
CLEVELAND	137.0	14.11
KANSAS CITY	166.8	15.81
NASHVILLE	170.3	18.72
RICHMOND	172.0	20.78
BALTIMORE	177.7	18.33

INFANT DEATHS UNDER ONE YEAR
PER 1000 BIRTHS

ALL AGES PER
1000 POPULATION

Introductory Remarks by COMMISSIONER PORTER: It is not necessary for me to say that it gives the Department of Health of the State of New York the greatest possible pleasure in welcoming you here this afternoon. Particularly so, when we remember that our errand here this afternoon is for the advancement of infant welfare.

I am glad to announce we have with us the distinguished Governor of the State of New York. My friends, it is a very great privilege to me, as it is to all of us to be able to greet, on an occasion like this, the Governor of our own State. You all know of the deep interest the Governor has taken in health matters. Some of us know of the time and labor and anxiety health matters have caused him. I am frank to say that I know of no Governor who has betrayed more anxiety for the advancement of health welfare of the State than Governor Sulzer, whom I now have the pleasure of introducing.

ADDRESS BY THE HON. WILLIAM SULZER,
GOVERNOR OF THE STATE OF NEW YORK

My friends: I am very glad to be with you this afternoon for a little while, because no one in our State takes a deeper interest in infant welfare than I do.

You are to be congratulated on what you are doing for the State and, more than that, commended for what you are doing for humanity, and, after all, humanity is the greatest thing in all the world. When we grasp that fundamental idea we begin to comprehend its significance.

Not so very long ago I was a guest at a dinner in the White House. I sat alongside of one of the most distinguished ambassadors to our country. During the dinner he asked me what I considered was the greatest thing in the world, and I promptly answered, "a baby." That struck him as being rather odd and peculiar, and he asked me why, whereupon I promptly asked him what he considered the greatest thing in the world, and he immediately replied the Taj Mahal. Then I said "The Taj Mahal is a beautiful mausoleum built in India by a Frenchman, and that Frenchman was a baby once upon a time." He looked at me and said, "Well, that is so; you have given me a new idea of things." "Yes," I said, "and I will give you a greater idea, Mr. Ambassador. Remember that everything on earth that we respect or revere and admire on account of its beauty,

that God did not put on earth, is the work of a man or a woman, and some time or other that man or that woman was a baby. So, after all, the greatest thing in the world is a baby, and all that we are, all that we have been and all that we hope to be we owe to the baby, grown up to manhood or to womanhood."

We talk about conservation. I am a conservationist in season and out of season, all along the line, but the greatest conservation on earth is the conservation of child life. On that depends the future. On that depends our country. On that depends the hope of the world. Let us not forget these things and, more than that, let us be careful that nobody else forgets them.

So I am very glad to be with you and to thank you for all you are doing. In a humble way I am working along your lines and doing what I can to carry out your views and your ideas. To that end, not so long ago, I appointed a commission of very eminent and distinguished citizens to look into health matters, to look into child welfare in the State of New York, and to report to me with suitable legislation to stop many things that should never exist in the State of New York and to take heed by the lessons of the past for the future.

That distinguished commission,—one of the best commissions, in my judgment, ever organized—accomplished in a very few weeks a remarkable amount of work in the securing of data and information regarding the subject matter. It was a revelation to me. Some of the things staggered me, and I am not easily staggered.

I sent that report and the testimony accompanying it to the Legislature and recommended to the Legislature (and we all helped to get it through) a bill recommended by these distinguished and patriotic and experienced and eminent citizens, and the legislation passed and is now on the statute books and, with the help of good Dr. Porter here, for whom I have a very high opinion, and others, we hope to put into execution in a very short time the tremendous agencies which we now have to accomplish what you are talking about and which we want to accomplish,—the conservation of child life and the good of humanity.

I hurriedly got together some data just before I came up here. This data ought to go out to the people of our State. I think very

few are familiar with these statistics, which are an indictment against our civilization.

Let me tell you and, through you, all concerned, that over 25,000 babies, under one year of age, died in the State of New York in the year 1912. The government authorities admit that at least half of these deaths were preventable by known, practical methods.

This question is great enough and large enough for the State of New York to undertake a systematic study into the methods and means of prevention. I believe in the old, elemental things, and I know that an ounce of prevention is worth a pound of cure.

The Public Health Commission calls attention to these things and to work along these lines and recommends that each city with a population in excess of 10,000, and having an industrial population, should have one infant health station, and that larger cities, with an industrial population, should have one such child health station for, approximately, each 20,000 inhabitants.

Under the law which I mentioned a few minutes ago and for which we are indebted to the gentlemen on this Commission, it is now possible to more accurately register births. This is a great step in advance, as New York State has been criticized by the National Census Bureau for the inaccuracy of its birth statistics.

With a knowledge of the number of infants born and the localities and the causes of deaths, each community should be able to secure through the Health Department, first, the instruction of mothers during the pre-natal period. Second, competent attendants at child-birth. Third, encouragement of breast feeding. Fourth, medical supervision of the child at stated intervals, whether breast or bottle fed and last, but not least, pure milk for infants for whom maternal nursing is impossible. That is very, very important. It is a disgrace to our State that we have not heretofore given the subject the attention to which it is entitled.

I shall do all in my power, in the future as in the past, to co-operate with you and aid you in every way I can, to do everything that can be done for infant welfare and the conservation of human life.

All honor and all credit to you men and women for what you are doing for the State, for our race and for the betterment of humanity.

ADDRESS BY EUGENE H. PORTER, M.D.,
STATE COMMISSIONER OF HEALTH

I think we have reason to be congratulated that, in a meeting for the advancement of infant welfare we have a Chief Executive who is willing to come and meet and tell us of his

interest that our efforts shall succeed. It is not so many years ago in this, our own State, that to obtain the attendance of any public man of any prominence at a health meeting was almost an unheard-of thing. Now we have gone so far in our campaign for health that we have what you might call a "Health Governor" and it certainly seems to me that with the advancement of public sentiment, with the interest manifested by our officials in the State and with the enthusiasm developed among ourselves, we are upon the very edge of the greatest advance in health work our State has ever seen.

In a Bulletin put out by the Department some little time ago, which contained a number of articles on the conservation of infant life and health, you will remember that the statement was made that the deaths of children under one year of age comprise from one-sixth to one-fourth of all deaths recorded, and while the general death rate of the State was 15.5 per thousand of population, the death rate of children under one year of age was 114 for every thousand, and the death rate of children under five years of age was 146 per thousand.

Now, these figures, appalling as they are, do not tell the entire story. The diseases which proved fatal in many instances, in many other instances, where they did not prove fatal, left a life-long mark. The children who did not succumb, whom death did not claim, many of them were enfeebled and rendered physically or perhaps mentally unfit to carry on the battle of life.

It is difficult to make vivid the picture of the civilization we ought now enjoy if we only would. I am not speaking of an ideal civilization,—that sort drawn by the perfectionists is not a 20th Century possibility,—but a higher and better civilization is a present possibility that may be realized by people living in this century. It is ready now to appear; but its emergence implies a change of opinions, ideals and institutions and a shifting from past to present conditions.

And there must be no more halt for more information, skill or power. It must be remembered that a great part of general well being must be secured through social co-operation.

Health can be improved and education extended only by means beyond the reach of individuals. They are properly in the budget of the State and should not be added to that of the family. Society fixes the conditions of healthfulness in a community, and the contrast of the income of families with health making conditions given by the community is a test of the efficiency of public and private efforts.

Education was socialized when men began to perceive its returns in efficiency and good citizenship. And so industry will be socialized and poverty checked when health and energy are given their due consideration. Then a park will be made beside every schoolhouse, all water will be wholesome, light and air will be clear and the streets will be clean and safe. I hold that health administration is incomplete until its advantages are given to men, women and children as rights that can be enforced through courts as can the right to free speech or trial by jury. As Mr. Allen says, there is all the difference in the world between having one's street clean because it is a danger to some distant resident or because a neighbor takes a philanthropic interest in its residents and because one has a right to clean streets regardless of the distant resident or the neighbor's interest.

Health rights like all other rights must be obtained by common action. We have already formulated rules that prevent one man taking from another those rights, economic and industrial, that are as essential to 20th Century happiness as were political rights to 18th Century enjoyment. So we must now formulate health rules to prevent the taking away from one man his health rights.

One by one we have slowly gained quite a number of health rights and we are here this afternoon to endeavor to add to that number the right of the babies to have a fair chance to live and grow to be strong and robust men and women.

I do not believe that the true greatness of a nation depends on the size of its population. Quality counts for far more than quantity. And in saving babies lives it must be remembered that to make this service of real value those lives so saved must be made a strengthening power in the State.

I need not attempt to discuss the important question of Infant Mortality and its causes and prevention. We know the need of proper care and wisely selected food. How to lessen the ignorance of mothers — how to carry the teachings of health in the care of children to all parents — how to secure clean and pure food — milk in particular — how to arrange for proper and efficient supervision of the great and important work to be undertaken — all these are questions before you for discussion.

It all comes back to this after all:

1. A definite knowledge.
2. The dissemination of this knowledge — the education of the public.
3. A strong and adequate health law efficiently enforced.

These are the three essentials and it may be well not to forget them.

While we are now in possession of much information concerning infant mortality and its causes yet it might be well now that we are to engage in a concerted effort to better conditions, to have a survey of conditions actually now existing made, a sanitary survey of babydom, and find out more accurately and more definitely the conditions that prevail in various localities with the idea that by adding to our special knowledge of such conditions that we will be prepared to be more efficient and do more prompt work.

We must not confuse the kind of Sanitary Survey which I have in mind with the hasty general inspection which has been made in some of our cities which have been made by some "experts" possessed of more zeal for uplift work than knowledge of how to accomplish it, and with little understanding of or sympathy with what is already being accomplished. Doubtless these "surveys" have been fruitful of somewhat more than temporary sensation, but for the most part their value is slight and the disclosures and advice which they bring forth soon forgotten.

But this Conference has above everything else already decided that prevention is better than cure. That is the keynote in dealing with the baby. We want to prevent him from sickness; prevent him from dying. That is also the keynote of modern sanitation. And yet how many, many excellent intelligent citizens fail to see or understand that if we *prevent* we do not need to cure.

INFANT WELFARE AND THE STATE

BY HENRY L. K. SHAW, M.D.

Consulting Pediatrician, State Department of Health.

I am very glad to hear what the Governor had to say regarding the importance of the baby. One of the greatest philosophers this country has produced, the late Professor John Fiske of Harvard, once said that "It is babyhood that has made manhood what it is" and that "Out of the very helplessness of the infant comes the helpfulness of man."

The subject assigned to me is the Relation-ship Between the State Department of Health and Infant Welfare Work.

The people of this State should feel a great debt of gratitude to the Commissioner of Health, Dr. Porter, because of his interest in this subject. A year ago he felt that the number of infants' deaths was disproportionately large and decided to take active measures in order to reduce them. Many will recall the special bulletin on Infant Mortality which was published in May, 1912, and also a small booklet entitled "How to Save the Babies"

which has been very widely circulated throughout the State. Popular lectures on the importance of preventing infant mortality and on the care and feeding of infants have been given under the auspices of this Depart-

are a gross injustice to God and to mankind, and are neither excusable nor pardonable. They represent the greatest loss to mankind today, and it is little short of criminal negligence that permits them to exist".

COMPARATIVE DEATH RATES

for some principal

EUROPEAN CITIES 1912

AMSTERDAM	64.61	10.94
STOCKHOLM	82.36	14.04
ZURICH	89.28	11.20
LONDON	90.21	13.52
LYONS	98.84	16.50
BRADFORD	100.43	18.71
MILAN	102.35	15.40
BRISTOL	103.36	13.62
EDINBURG	104.18	14.50
MANCHESTER	106.87	17.12
SHEFFIELD	107.30	14.29
BIRMINGHAM	111.42	14.11
BREMEN	116.77	14.93
LIVERPOOL	124.95	17.77
DUSSELDORF	125.26	11.94
CHARLOTTENBURG	127.64	11.21
BELFAST	129.40	18.14
HAMBURG	129.66	13.58
LEIPZIG	132.69	12.73
MÜNCHEN	134.20	14.67
BERLIN	142.86	14.39
BRESLAU	163.24	19.38
INFANT DEATHS UNDER ONE YEAR PER 1000 BIRTHS		ALL AGES PER 1000 POPULATION

ment in many cities and villages throughout the State and the Department has co-operated with women's clubs and other organizations who are interested in this great work.

Dr. Harrington has said that "Infant morbidity and infant mortality as recorded today

Never has more intelligent and earnest effort been directed to the solution of this problem as in the last few years. The United States Government has established a Children's Welfare Bureau in Washington, and the new Health Law of this State provides

for a Division on Child Hygiene. So far as I know, New York State will be the first State to have such a Department.

The efforts of health officers in the large cities of this State have resulted in reducing the date rate among infants below that in the rural districts and villages of the State. This shows that efforts to reduce the infant death rate are attended with success. Babies die largely from preventable causes and when special work is directed towards saving their lives the response is immediate and decided.

The New York City Health Department, of whose work we shall hear this afternoon, has said that "Baby health is purchasable" and that "a community within natural limitations can determine its own death rate."

The Health Officer is the appointed guardian of the health of the people in his community and it is his duty to look after the health and welfare of the babies as well as of the adults. He should be the one to inaugurate, or at least direct efforts to lower the infant mortality in his district. For the purpose of so instructing and educating him this Conference was called.

In the bulletin on Infant Mortality issued by the State Department of Health in May 1912, the following was suggested as steps a local board of health could take:

(1) Enforce the law regarding the registration of births in order that we may have an accurate measure of the problem and of our success in meeting it.

(2) Make a special study of the causes of deaths among infants under one year of age, paying special reference to whether the child was breast fed or artificially fed.

(3) The preparation of a community map in which the location of each death of an infant is represented by a dot will help in determining where efforts should be concentrated and may indicate a need for improved sanitation.

(4) Educate mothers in the care of themselves and their babies by lectures, illustrated talks and the distribution of such circulars as "How to Save the Babies" and "The Care of Milk in the Home," issued by the State Department of Health.

(5) Wherever possible establish an infants' milk depot where poor mothers can get suitable food for their little ones, where children who are not thriving and those who are sick can be brought to the dispensary physician, and where a visiting nurse can instruct the mothers in the care of their children, supplementing this instruction by a visit to the homes.

(6) Cooperate with other organizations that may be working along similar lines and correlate the work of all so that there be no

duplication and that every ounce of effort will tell.

(7) Study the sources of the milk supply of the community and adopt reasonable regulations governing the sale of milk in the community.

(8) Enforce quarantine regulations in connection with communicable diseases and carry out efficient disinfection.

Commissioner Porter's heart and soul are in this work and he feels that if a vigorous campaign is instituted in the rural districts and in the smaller cities and villages a great reduction in the infant mortality would be accomplished. Some of the localities represented here today have problems which perhaps have been met and solved by other localities. In order to derive the greatest benefit from this meeting, I trust that no one will feel afraid to ask questions and exchange experiences.

CAROLINE REST TRAINING SCHOOL FOR MOTHERS

BY LINSLEY R. WILLIAMS, M.D.

New York Association for Improving Condition of the
Poor

The Caroline Rest Training School for Mothers is conducted by the New York Association for Improving the Condition of the Poor. In 1906, one of the friends of the Association offered to give it a small piece of ground with a building on it for use as a convalescent home. The Association did not feel able to accept that kind offer because it did not feel that it could raise the money necessary to carry on the work. A year later, however, this gentleman offered to build a larger home and donate the new building and the land and a sufficient endowment to maintain it. This generous bequest was accepted, and during the construction of the new building, the smaller one was used as a convalescent home for mothers.

Our patron took a personal interest in the construction of the new building, giving attention to every detail, and finally turned over to the Association the finished building in May, 1909, ready to accommodate ninety mothers and children.

Except for three months during the winter of 1910, the Rest has been open continuously, as the managers felt that the convalescent care of mothers and the attempt to reduce infant mortality by the education of mothers was not a summer problem only but an all-year-round problem.

After the new building was opened, it was found that there was some difficulty in filling

the institution. Invitations were sent to the various maternity and other hospitals, but an insufficient number of applications came from them to fill the Rest, and the managers were a little discouraged about the work at that time. Believing, however, that there was a distinct need for the convalescent care of mothers after confinement and believing that there was a need for the education of these mothers, the Association determined that it was simply a business proposition and that we must employ business methods to secure new business. We suggested to our generous donor that by means of three trained nurses we should be able to visit many expectant mothers, whose families were being relieved from the general funds of the Association and other expectant mothers, and to invite them to come to Caroline Rest after their confinement. Three nurses were then engaged in 1909 and began to visit all the expectant mothers referred to them and to instruct them in personal hygiene, the value of rest and exercise and the general care of pregnancy. This was a beginning of the prenatal work done by visiting nurses in New York City. The nurses were instructed to visit these expectant mothers, not less than once in two weeks, to see that suitable arrangements were made for the confinement with either doctor or midwife. The nurse was also to see that each prospective mother was supplied with the necessary outfit for her confinement and for the child.

A large amount of similar work has been done in the last two years by the New York Milk Committee with the same success that has attended our work.

The guests are sent weekly to the Rest and before their departure from New York they are inspected in order to prevent contagious diseases from being admitted to the Rest. The Association believes that the best results for the mothers will be obtained by having them work during the morning and resting in the afternoon, although in certain cases, where the mother is in a weakened condition, she is not compelled to work. We know that most of the mothers who dwell in New York tenements have usually no definite idea of the proper arrangement of their time and we attempt, therefore, to plan their time for them at the Rest, so that they may learn a great deal of the care of children, and that they may be made better mothers.

DAILY ROUTINE. Rise at 6:30 and, after breakfast, each mother goes to her room and makes her own bed. At 7:30 the mothers meet in a room where there are a number of low tables with the ordinary nursery utensils needed for washing a child and each mother is there taught how to dress and un-

dress her baby, how to wash him, how to look after the eyes and mouth, the need of cleanliness, adjustment of diapers and so on. The mothers are then gathered in another room and are given instruction in bed making, the variety of clothing to be worn in summer and winter, the importance of regular hours of feeding and sleeping. Each child is then put to bed for a morning nap. The mothers meet again in the work room and are given practical instruction in the modification of milk. Each mother makes up her own child's formula every morning during her stay of two or three weeks. Fortunately over half of the mothers do not have to receive instruction in the modification of milk, as they are able to feed the child at the breast. But even in these cases the mothers are taught the general principles of modification in case of future need and they are also taught how to prepare barley water, cereals, etc., and are then given short talks, daily, on the care of the child in sickness and in health, the cause and prevention of summer diarrhea, and the value of fresh air, exercise, rest and all the little details which a mother should know in order to properly bring up her child.

Another important branch of the educational work is the practical instruction given in sewing. Many of these mothers have had a good education, but seem to know little of the practical household duties. Each mother is given individual instruction in ordinary routine sewing, the use of the pattern, the adjustment of sleeves and the making of buttonholes, and each mother is helped to make and complete at least one garment for her own child, which she keeps to take home with her.

When the mother and child leave Caroline Rest, there is still further work done by the visiting nurses. The mothers are directed to take their child to one of the infant milk stations of which there are now fifty-five in New York maintained by the Health Department.

Another branch of the work in which Dr. Van Ingen and I are particularly interested, is the actual statistical results. We have just formulated a set of statistics taken from the cases discharged from Caroline Rest, in order to compare our results with those obtained by the work of the Milk Committee and the Department of Health, of which Dr. Pisek and Dr. Lughton are going to tell you.

If, after a detailed, comparative study of our work with that of other agencies, we find that there are other ways of instructing mothers and diminishing infant mortality that may be more expedient and cheaper than our method, we have the permission of our far-sighted friend, in his deed of gift, that five

years after the opening of the institution we are at liberty to utilize the property and the proceeds thereof for health education and other similar work for the prevention of poverty and disease. At the present time, however, we are so well satisfied with the results of our work that nothing is further from our minds than this suggestion.

STABILITY AND COOPERATION IN PRENATAL WORK

By FLORENCE M. LAUGHTON, M.D.

Division of Child Helping, Russell Sage Foundation

There has hardly been an undertaking in the whole field of work for the prevention of infant mortality that shows evidence of greater promise than prenatal instruction. You all know its history to date.

In the few minutes which are allotted to me, it seems best to confine myself to two points which seem most desirable in order to insure stability in the work of prenatal instruction.

The first essential is that all of the different agencies which are undertaking this responsible and difficult work,—physicians, nurses and social workers, shall understand and supplement each other's work and methods. We, as doctors and nurses, must educate ourselves first to know something of each other's problems, and of the methods which time, education and experience have shown to be the best to those familiar with them. Whether those problems are peculiar to the field of the Health Department, private or organized charity, intelligent, mutual understanding becomes of prime importance.

Stability and mutual help and cooperation will make this social service work the most powerful unit for health preservation in the world today. I do not believe that we exaggerate when we claim that the perfecting of these two points alone will produce that result.

The doctor and the nurse must learn that "charity" or "relief" today does not mean merely dole-giving, but involves as much more in proportion, to be effectual or helpful, as prescribing in medicine means more than mere knowledge of the apparent locality of the pain.

The second essential is that all of these different agencies shall learn to supplement each other and to pull together and, so far as is possible, to be *uniform* in the use of what is valuable, whether that be in the keeping of *records* or in the use of *methods*.

No one has greater opportunity,—surely no one has greater power, individually, to lead in and to set the example of broad, coopera-

tive health work than has the Health Commissioner of a large city.

At a recent meeting at the Academy of Medicine in New York City, Health Commissioner Ernst Lederle made two statements which were very striking and encouraging, first, because they were true, and, second, because they show the splendid foundation upon which those enlisted in the campaign for life and good health among the babies of New York City may build this summer. The first statement was: "Never before has New York City started out with such a clean city." The second was: "Never have more citizens been genuinely interested nor has cooperation been better."

I believe that every individual who is working impartially and earnestly for the prevention of infant mortality this year has a sense of gratitude to Commissioner Lederle for giving us this cleaner field into which to bring our more clarified and systematized knowledge and ideals of effective preventive work.

Through the Babies' Welfare Association of New York City all workers now have an equal opportunity to know what the others are doing and how they are doing it.

There is one point upon which I believe that we, as physicians, need especially to focus our thoughts and activities. Most of us are agreed that in education lies, primarily, our greatest hope,—not only in the education of the mothers and fathers of our babies, but in the education of the educators and the co-operation of those educators, from which alone can result the greatest benefit to those whom we are endeavoring to help.

Specialism must exist for the general good, always, in a community of diverse minds and so of diverse individuals, but mutual understanding and cooperation will inevitably bring the best into general use for the greatest number.

Many problems,—for example, prenatal work,—may, in time become more and more municipal problems only, but, meanwhile, during this period of evolution, the finest kind of prenatal instruction may come from a charity organization society as a part of the treatment of its family problem, or from an instruction center as its only problem, and a mutual tolerance and comprehension of each other's work alone may hasten by many thousands the reduction of congenital diseases.

The field is large, the need great, but, in trying to help and to teach our patients, we shall find our greatest results in becoming at times students ourselves and of each other, and so becoming stable.

Under these conditions no suffering, no illness and possibly not even poverty will in time be found unconquerable.

HEALTH OFFICERS INVENTORY

FUNCTIONS MAKING FOR HEALTH

PUBLIC

KEEPING OF PUBLIC HEALTH RECORDS
COMPLETE REGISTRATION OF
Births
Deaths
Tabulations
Study of Data
SANITARY CONTROL TO OBTAIN
Clean Milk
Clean Water
Clean Food
Clean Streets
Clean Houses
Clean Factories and Workshops
CONTROL OVER INFECTIOUS DISEASES
THROUGH
Compulsory Reporting
Effective Quarantine
Preventive Measures
Education
SANITARY CONTROL OVER DISPOSAL OF
REFUSE AND WATER
GENERAL SUPERVISION OVER
Midwives
Private Maternity Hospitals and Dispensaries
Day Nurseries
Milk Stations
Kindergartens
Institutional Babies
Boarded Out Babies
Schools
Common Boarding Houses
Public Hospitals and Dispensaries

PRIVATE

BY SURVEY OF PRIVATE CIVIC AGENCIES
DETERMINE
Number, Character, and Scope of Activities
Financial Support
Special Interest
Personnel — Leaders
CORRELATE ACTIVITIES OF PRIVATE AND PUBLIC AGENCIES THROUGH CENTRAL COMMITTEE ON FEDERATION
To Adopt and Promulgate Health Laws and Ordinances
To Stimulate Public Interest in Health Efficiency
To Formulate a Health Program
To Supplement Activities and Facilities of Public Agencies
PRIVATE AGENCIES POSSESSING POTENTIAL POSSIBILITIES IN PLANNING AND CARRYING OUT A PUBLIC HEALTH PROGRAM
Local Medical Society
Chamber of Commerce (or Board of Trade)
Woman's Civic Clubs
Granger Organizations
Labor Organizations
Church Organizations
Fraternal Organizations
Hospitals and Dispensaries
Day Nurseries
Visiting Nurses Organizations
Child Welfare Agencies
Schools
Tuberculosis Agencies
Public Press

THE HEALTH OFFICER'S PLACE IN THE CAMPAIGN FOR THE REDUCTION OF INFANT MORTALITY

By GODFREY R. PISEK, M. D.,

Medical Director, New York Milk Committee

The New York Milk Committee was primarily organized to improve the milk supply of the city, but it soon recognized that, to be effective, it must demonstrate through what fields of effort, baby lives could be saved.

Five cardinal lines of activity stand out in the Committee's campaign, and in giving you a digest of these, I will name them in the order of their importance.

First.—Education of mothers in the care and feeding of their babies, demonstrated to be practical through centers or milk stations.

Second.—Clean milk at a low cost to the poor — a necessity — made possible by the Committee's experiment in clean milk produc-

tion. This type of milk now used by the Municipal Milk Stations.

Third.—Milk standards as to cleanliness and safety, are essential for the guidance of producers, dealers, consumers and officials.

Fourth.—Cooperation between the public and private agencies promoting efficiency in giving the best results without waste of effort.

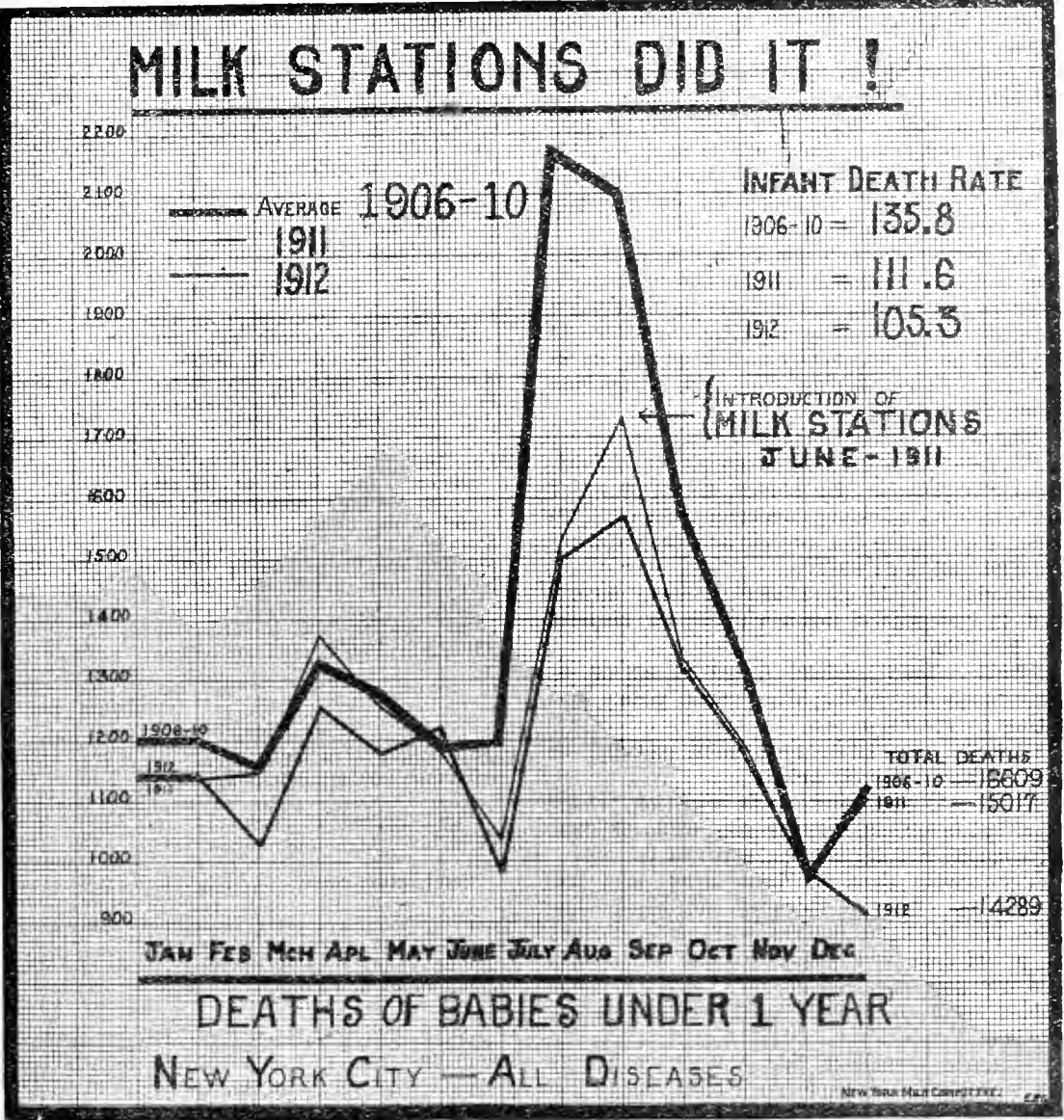
Fifth.—Campaign of prenatal supervision in which the effort is directed to reduce the waste of infant lives by preventing still births and reducing mortality during the first month of life by preventing premature births, securing a stronger and healthier baby and making maternal nursing possible.

There is still one large gap that must be stopped by those working in this field, i. e., the deaths from congenital diseases. Personally, I feel it offers difficulties greater than any heretofore encountered but we are already at work on it and with the cooperation of such bodies as these, we may solve even this problem.

Allow me to very tersely expand on some of these groups in attempt to show how they may be practically applied throughout the State in the effort to reduce its infant mortality.

Cosmopolitan New York with its 125,000 new born babies a year presents a much more difficult problem in this field than in other

City in the first rank among the larger cities of the world in the work of baby saving. We feel that this reduction was markedly assisted by the promotion of milk stations through which clean and safe milk was made available to poor babies requiring artificial feeding and their mothers educated in the care of their babies. It may interest and instruct



cities—in many respects a problem distinctly its own. It was felt that if success could be demonstrated in the Metropolis, it would be decidedly encouraging to other communities to prosecute similar efforts.

During the year 1911, the death rate among infants was reduced from 125 per 1,000 births to 111. In 1912, this rate was still further lowered to 105 thereby placing New York

you to know that at the outset, we thought we must give the baby milk already modified and that this almost financially demoralized us for it costs (including all over head charges) just 28 cents a quart to modify and deliver. Necessity forced us to try home modification and in spite of much opposition from our doctors and nurses, it succeeded and won the enthusiastic support of its former opponents.

To my mind home modification is the far better method for it has behind it a great factor—education. The mother learns—for this and the next baby—the neighbor learns—the sister learns—and the baby profits by individualized attention. Only in exceptional instances, is it wise to put into the hands of the mother the ready-prepared bottle. The results of this joint milk station campaign were so striking that the city authorities felt justified in appropriating sufficient money to carry on these municipal stations throughout the Greater City.

At this point, may I humbly advise that from the outset the health officer shall so plan his work that an effective demonstration will practically compel its adoption by the authorities as a public work.

The study was now made in deaths occurring in the first month of life and an experiment is now being carried on to determine the value of educating expectant mothers in the hygiene of pregnancy and of giving careful supervision during the first dangerous month after birth.

The organization is made up of

First—Visiting field nurses giving individual instruction in the homes, securing relief when needed, advising concerning the confinement, supervising the mother and baby during the first month of its life.

Second—Field physician advising nurses and in exceptional cases visiting on request the patients.

Third—Two medical directors acting as consultants controlling the general policy and acting in special cases.

Fourth—An advisory council passing on general methods and details.

Fifth—Cooperation with existing relief agencies, hospitals, dispensaries, milk stations, physicians, visiting nurses, settlements, etc.

The results thus far have been most encouraging. In the Borough of Manhattan there has been a reduction in supervised cases of 32 per cent. in the deaths under one month and 28 per cent. in stillborn among 1,398 babies with only two deaths among 1,375 mothers.

When it is realized that our people live in the worst part of New York City, under the terrible conditions of overwork, poverty, and overcrowding, and that their confinements occur under these conditions, these figures mean a great deal if they are compared with the figures for all classes of the population, rich and poor together.

Also it is encouraging to see that over 92 per cent. of the babies living at the end of one month were being nursed entirely; that only 3.7 per cent were altogether deprived of the breast.

Of 1,375 mothers, 2 died—1 from hemorrhage due to a placenta praevia; 1 from convulsions before the baby was born.

It has been claimed that work of this sort—in fact, all baby saving work—is interfering with nature's plan of the survival of the fittest; that by keeping these babies alive, we are helping to produce an inferior race. This is applying practical eugenics to existing conditions.

TABLE SHOWING RESULTS OF PRENATAL CARE OF MOTHERS

	Total.	Per cent.
Total mothers supervised, 1,375.		
Gave birth at term to living baby..	1,310	95.30
Gave birth to premature living baby	16	1.20
Gave birth to still-born baby	48	3.50
Mothers surviving	1,373	99.86
Mothers died	2	0.14
Total babies born.....	1,398	.....

Nursing History

Of mothers who bore one baby who lived to be a month old, there were, at the end of the month:		
Nursing baby entirely	1,187	93.50
Nursing and bottle feeding.....	48	3.80
Artificially feeding entirely.....	34	2.70

Of mothers giving birth to twins (24) whose babies lived to be one month old (23) there were, at the end of the month:		
Nursing both	9	39.10
Nursing one (other having died) ..	2	8.70
Nursing one (artificially feeding other)	4	17.40
Mixed feeding both.....	3	13.00
Artificially feeding both.....	5	21.70
	23	99.90

BABIES

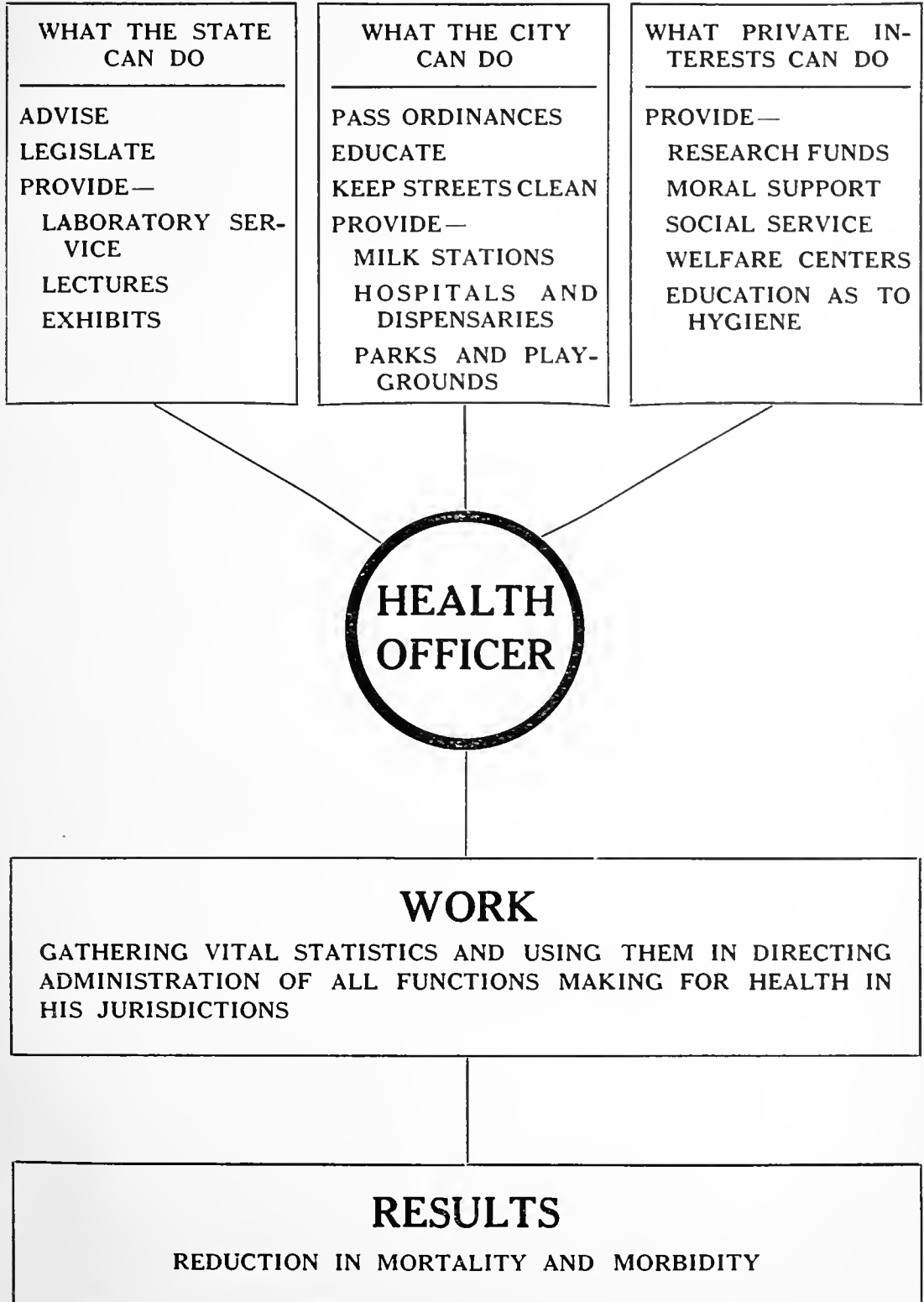
Babies born alive at term.....	1,334	95.40
Babies born alive prematurely.....	16	1.20
Total babies born alive.....	1,350	96.60
Still births	48	3.40
Total babies born.....	1,398	.....
Twins	24	.....
Of 1,350 babies born alive there were:		
Living at end of first month.....	1,313	97.30
Died during first month.....	37	2.70

The establishment of a babies' welfare association (really a federation) brought together eighty organizations interested in any way in infant welfare work. Its purpose is to save babies by saving wasted effort.

It acts as a central clearing house to make available to all its components information possessed by each organization.

It carries on an extensive educational campaign through newspapers and special literature. It issues weekly reports to its members concerning health conditions among the babies and it also centralizes the distribution of free ice to the poor.

ASSETS AND LIABILITIES



How the health officer may profit by our experience in New York City, I have attempted to show on the wall charts. These are merely suggestive and will need to be adapted to the special needs of each community.

Suggestions as to Cooperative Organizations

While no other city has the cooperative problem to so great an extent as New York City, it exists nevertheless, to some extent, in any community large enough to have more than one organization doing any kind of social work. If there is one hospital, one charitable society and one or more churches in a town doing social work, we immediately have the nucleus for a small babies welfare association, and we believe that the lesson in the possibilities of cooperation under the greatest of difficulties, learned in New York City, can be applied in modified form in smaller communities much more easily. Stamford, Connecticut, for instance, a city of 15,000 inhabitants, has one hospital, a visiting nurse's association and an association of charities, which includes a number of churches, lodges and other societies. From these few elements they have decided that they can profitably organize a babies' welfare association something along the line of that tried successfully in New York City.

Suggestions as to Milk Station Work in Small Towns

Any village or city of over 5,000 inhabitants might profitably establish a milk station, or, even better, a child's welfare center in which educational work alone is conducted, if the general milk supply of the community is of a high enough grade, and does not merit the special dispensing of pure milk. As an example, the experience of Englewood, N. J., might be cited. This town has only about 10,000 inhabitants, but as a result of an influx of a foreign element the infant mortality rate became very high. A small cottage was rented and a dispensary and baby shelter established where the nurses in attendance gave instructions to mothers on the care of their babies. The doctor in charge treated all diarrheal cases and two or three beds were provided where babies could be kept temporarily in case their mothers were sick. At the same time pure milk was sold, at a moderate cost, to the mothers who needed to give their babies artificial feeding. As a result the Englewood infant death rate was effectively cut down. It now has one of the lowest death rates of any community of its size in the State of New Jersey.

In smaller villages where a station could not be run to advantage, and where milk dispensing is not necessary, educational work can and is done, successfully, by a single visiting nurse. Even in hamlets and rural communities a church society can provide a fund from which a local nurse can be hired temporarily, whenever there is a family in need of such work.

Suggestions as to Prenatal Work

The same suggestions can be made regarding this work as regarding milk station work in smaller communities. We believe the work can be carried on in larger cities, by districts, just as it is carried on in New York City. In smaller communities any visiting nurse or organization employing visiting nurses can profitably take up this effective and not costly effort to save infant lives and reduce not only mortality but morbidity.

A CLEAN MILK SUPPLY

By J. A. FOORD

*Director, Division of Farm Administration,
Mass. Agricultural College, Amherst*

After Dr. Pisek's address I do not need to say anything about the desirability of a clean milk supply. I want to add, though, one statement by the Chairman of the Medical Milk Commission of Boston. He said four or five years ago, before we had certified milk, "I used to have in my private practice about one hundred cases of sick babies in August; now I have two or three." That is a concrete example of what can be done by improving the milk supply.

Milk is a cheap food. I wish we could get the people to understand that, because good milk is a cheap food.

There are three things that go to make good milk,—quality, purity and safety, and from the health officer's standpoint I believe it should be safety, purity and quality. Dr. Pisek has said that the health officer should hold the lines. I want to ask you, gentlemen, because I know the American farmer, not to hold those lines too tightly. Do not be dictatorial,—be suggestive. Do not forget that the American farmer has all his life lived an independent life. He works in his fields alone, or with one man. He thinks out public questions himself,—he does not take the opinion of his next door neighbor. So he is independent, and when you approach him, he says he knows as much about making milk as you do. I want to ask you also not to pay too much attention to the details of production. You are after the product. Set a standard for that product on its purity, safety and quality.

What can the health officer do? The United States Department of Agriculture publishes a score card of the methods and equipment of market milk dairies. You can easily secure these. Get a good, conscientious man, who knows something about agriculture and has had a good training, and have him go around and visit the farmers supplying milk to your city or town and fill out this score card while there; have him make a duplicate and leave one with the farmer. Talk it over with him, his light supply, his air supply, the cleanliness of his barn, his water supply, the fact that his manure pile is too close to his stable, or the fact that there are too many breeding places for flies. Put it all down on the score card. He will take that score card from the Department of Agriculture when he would not take it from the Department of Health. He believes in the Department of Agriculture, and he has had a good many dictatorial inspectors talk to him from the Department of Health. I am talking about Massachusetts conditions now. I do not know anything about New York. Leave him one score card and take the other, and let that be a record of his dairy.

What else? You can make a sediment test with a cheap little piece of apparatus, that can be obtained from any dairy supply house. At the Massachusetts Agricultural College we buy milk and make a sediment test of the milk from each herd. If the milk is not clean, we call in the producer, "Mr. Brown, just look at these; these are the results of yesterday's test." That is all that is necessary. He goes home and corrects the fault. All you have got to do is to show him the facts in the case.

You can also make a bacteriological test. Doctor North, in experiments in milk production at Homer, N. Y., made such a test daily for the information of the farmers, and produced what was practically equivalent to certified milk for two cents a quart above the regular market price. Those farmers saw the effect in the daily bacteriological test and sought the cause in order to remedy it. If they drew in a load of hay when they were milking, they saw the effect the next day in a higher bacterial count. If they allowed their pails or other utensils to become contaminated in any way, they saw the result in the next day's test. A little advice and suggestion will go a long way.

Do not put too much stress on the fat content. Physicians agree that most children are better off with milk containing three per cent. of fat than that containing five per cent. If you insist on four and five per cent., you shut out two of our best breeds of cattle, Holsteins

and Ayrshires, whose milk is as good if not better for the children than the others.

Then, the health of the cattle and the health of the men are important, and need your attention;—and there is one other thing. If you increase the cost of the milk to the farmer, you should impress that fact on the consumer, so that he will pay the cost, because you know as well as I do that the farmer seldom receives over one-third of the consumer's dollar. I admit that our methods of distribution are poor, but that is another problem.

There is still another important thing. The consumer needs as much instruction as the farmer. It is your duty to instruct the consumer in the care of the milk after he receives it.

INFANT WELFARE WORK IN BUFFALO

By FRANCIS E. FRONCZAK, M.D.,
Health Commissioner

There is no doubt but that in a cosmopolitan city like Buffalo, where poverty and ignorance are prevalent in some parts, the death rate of infants during the first year is somewhat larger than in the communities where the population is of a different type.

In the first place, in order to save the child, it is necessary to educate the mother and this is where our work is mostly concentrated. Expectant mothers are visited by nurses either from the Health Department or from the various private organizations and they are instructed how to look after the expected child and, when the child arrives, how to take care of it properly. Mothers who are working are requested not to work during the period at least four weeks before the expected arrival of the baby and from four to six weeks after its birth.

In the city of Buffalo, for the last few years, more of the work has been done by the medical profession. By that I mean that the mother during confinement is attended by a physician more and more, rather than by midwives. Last year 58 per cent of all births were attended by physicians and less than 42 per cent by midwives, this being a change from 40 per cent delivered by physicians and 60 per cent by midwives about ten years ago. The perineal tears or chronic invalidism of mothers has taught them the lesson that it is cheaper, in the long run, to obtain a physician than a midwife.

The registration of births in the last six years has increased in the city of Buffalo from about 8,000 to almost 12,000. This is, of course, not due to special fecundity in Buffalo, but rather to the urgency with which

we demand that births be registered in the office. The purpose of this is that we may instruct the mothers how to look after their offspring, and circulars in different languages, are sent to them. We have in stock, always, circulars on infant feeding, management of children, etc., in English, German, Polish and Italian and, in special cases, we give translations of these circulars in such languages as may be required.

Midwives are being controlled more and more every year. Examinations are made of their instrument bags to see that they and their contents are kept clean and also insist upon the use of silver nitrate or similar preparation for the prevention of ophthalmia.

However, I do not believe that the State has gone far enough, and most urgent steps are indicated for the better instruction of women who are to study and practice midwifery.

One of the methods which we also use for obtaining better registration of childbirths is to go to the various churches and look over the baptismal records and compare the same with our records.

The record of every child dying under two years of age is also examined to determine if the birth had been properly recorded. If not, an investigation is made to learn who was the attending party at the birth. A warning is sent to him or her, and if there is a repetition of the omission in the reporting of a birth, the physician or midwife is prosecuted.

There are eight children's institutions, including orphan asylums and training schools, which cooperate with the Health Department. About half a dozen summer institutions look after children on the lake beaches and in the country and the Health Department has absolute supervision as to the administration, water and food supplies and isolation facilities.

A few years ago scarlet fever broke out in an epidemic form in a fresh air camp at a considerable distance from the city, where hundreds of our infants were being given an outing on the shore of Lake Erie. The local authorities were unable to cope with the situation and the Buffalo Health Department was called upon for assistance. We took absolute charge of affairs and in a short time the epidemic was controlled and order was restored.

Every summer since, all children sent to camps on the lake shore or in the country are examined so that no child with a communicable disease enters such a camp, and absolute supervision is kept over all.

In 1899 the city of Buffalo began a warfare against the so-called long-tube nursing

bottle. Conclusive examinations showed that it was a most prolific source of bacterial growth and sure to bring about diarrheal diseases. Ordinances were enacted and a crusade to abolish it forever was started. Prosecutions followed and much publicity was given to the death dealing features of this innocent looking but damnable instrument, public sentiment aroused, and in a short time it was forever banished.

For a number of years the control of the milk supply of the city of Buffalo was far from what it ought to have been on account of the lack of help and facilities. However, in the past three or four years additional help has been secured and the department has been organized into bureaus and subdivisions for more efficient work. Now there is constant control of milk not only in the city, among the milk dealers, and grocers, but the city of Buffalo at the present time controls the milk supply even in the country. Our milk inspectors are appointed special Deputy Commissioners of Agriculture by the State Commissioner of Agriculture, and a thorough inspection of the premises and conditions in the country is made. Score cards are kept, and unless the farmer or milk producer comes up to the required standard, his milk is barred from the city.

There is no doubt but that the high death rate among infants is due to gastro-intestinal diseases. There is also no doubt that diarrheas are contagious,—especially so in crowded tenement districts, the contagion being carried, by flies and fingers, from the feces of the sick baby to the milk of a well baby, this being the principal reason for the excessive mortality among infants. In view of this, wherever a case of diarrhea is reported in the city, all children suffering from gastro-intestinal diseases must be separated from the well children, and fly screens are ordered in the houses to keep the flies away from the babies.

Good milk, either certified or cooked, is prescribed. There is no doubt that infantile diarrhea is a household disease and it is very necessary to provide fresher and cleaner milk, cooler milk, pasteurized milk and better care of the milk of the home. Free ice is delivered to the poor, when prescribed by district physicians.

Medical school inspection, no doubt, as it has been conducted in Buffalo during the last five years helps a great deal to prevent infant mortality. Not only are communicable diseases prevented from being spread among school children, but, also, among the minor children not attending school and the infants at home.

Medical inspection, therefore, not only pre-

vents the spread of communicable diseases in the schools and in the houses, but, by sanitary supervision of the school buildings and the environments and, also, the homes of the school children, it aids in the confinement of contagious diseases to a very limited number of children.

Educational activities in the city of Buffalo are very much in evidence. We publish a sanitary bulletin which is a monthly publication. It is published as a booklet of from 12 to 16 pages; formerly it was distributed among physicians of the city and we seldom printed more than a thousand copies; now, we are printing ten thousand copies a month, and send it out broadcast, distributing it to teachers, physicians, clergymen, school-children and citizens generally. The results from this work are in evidence. Lectures are being held in the various languages, especially in English, German, Polish and Italian, on infant mortality, food, fresh air and communicable diseases. Instructions are given to both men and women how to prevent certain diseases, for, no doubt, the regulation of venereal diseases, especially syphilis, will in itself reduce considerably the infant mortality.

Alcoholism in itself is quite a factor in the increase of infant mortality.

Lectures are given in the schools, at mother's clubs, church societies,—in fact wherever an opportunity is afforded. Every Sunday, through the press and other channels, considerable publicity is given to topics referring to sanitation and infant mortality.

The press in the city of Buffalo has been very good to us in this respect and we are under great obligation to it.

The Health Department of Buffalo absolutely refuses to issue a permit for anyone to sell nostrums and patent medicines and, especially, sleeping syrups, which are supposed to be friends of the baby, are not allowed to be sold in the city. The police are reminded, at frequent intervals, to arrest any person or persons who distribute samples of any drugs, nostrums, patent medicines and so forth, and mothers are warned repeatedly of the danger of giving soothing syrups to their children.

We know that in all large cities a number of children die annually from over-doses of that or that "friend of the babies," and, above all, we try to influence mothers to nurse their children, and provide better nourishment for mothers whenever it is indicated.

We send district nurses to instruct the mothers, and wherever there is an indication of the baby not receiving proper care, we see that the mother is influenced to send it to an institution. Day nurseries, hospitals and creches are provided in all parts of the city.

Better facilities are provided by hospitals for sick children. In the last few years hospital facilities of Buffalo have been increased considerably.

Protection against infection from flies, fingers and contact will reduce death of many an infant.

It has been stated that the way to protect the child is to educate his forefathers about three generations in advance. Reduce the number of syphilitics, alcoholics, idiots, and prevail upon women with gonorrheal infection or deformed pelvis not to become mothers, and there is no doubt but that hundreds and hundreds of children in our cities could be saved because they never would be born, and they should not be born of such types of mothers.

Better maternity hospital care and better visitation of every new born child by a nurse. These are the things practiced now in Buffalo or are on our program for the near future.

The city Department of Health provides nitrate of silver solution for the protection of the infants' eyes, and every physician and midwife is warned constantly to use the silver solution to protect the child from becoming a burden on the community by saving its eyes. A physician or midwife who is guilty of not using this or some other preventive in the eyes may be prosecuted.

I have referred to the cooperation of private charities. One of these maintains milk stations which are conducted on the plan of the "Drop of Milk Societies" as organized in Europe. At present we have several such stations conducted by private charities but in the near future it will very likely devolve upon the municipality to take over the control of this work.

I believe that within a year the city of Buffalo will run all these milk stations as a municipal enterprise. The Buffalo District Nursing Association maintains a number of such institutions and is carrying on this work among the poor. The nurses devoted to this charity are faithful, painstaking and their value to the service cannot be over-estimated.

Information regarding the evil possibilities of the fly, the mosquito and household insects of different kinds, dry-sweeping and dusting, and so forth, is circularized, in several languages throughout the city and, in this work, we have been aided considerably by the Boy Scout organizations.

At present the Health Department is undertaking most extensive preparations for the entertainment of the Fourth International Congress on School Hygiene, the work of which closely simulates that of infant welfare. I may also state here that the older girls in our schools are taught how to take care of

their little brothers and sisters. In other words, Little Mothers' Clubs and organizations of similar character are being formed.

This, in short, probably covers the most salient features of infant welfare work in the city of Buffalo.

No doubt this work might be extended in various directions and the morbidity and mortality of the infant would be decreased to a considerable extent.

INFANT WELFARE WORK IN ROCHESTER

BY GEORGE W. GOLER, M.D.,

Health Officer

Ten minutes is rather a short time in which to refer to the work that we have been doing but, inasmuch as I believe in keeping to the time, I shall simply confine what remarks I have to make in speaking of what has been done for the prevention of infant mortality and infant morbidity, as well as the work that has been done for the purification of the milk supply. This work, of course, with us is summer work very largely. The city, in its wisdom, has not yet given us sufficient funds to carry on this work all the year around, and at no time since beginning this work have we had more than \$2,000. We never had as much as the sum of \$2,000 available for the work we have tried to do for the prevention of infant mortality, nor at any time have we had sufficient funds for the work of instruction that we are attempting to do.

Sixteen years ago we began to seriously take account of our babies in Rochester. For a series of years we found that one-third of all our deaths was in babies under the age of five years of age, and those deaths included neither the still-born nor premature births. We then began to ask why all these babies died and what we could do to prevent their dying and, most of all, what we could do to prevent their becoming sick. We knew that there was no training for motherhood and we knew, too, that the introduction of such training would be a slow task. We believed, from the writing and teaching of others and from our own investigation, that much of the milk food of our babies came from dirty and diseased cows and that a great deal of it came from cows stabled in little, old barns both within the crowded centers of the city and in its confines, and, when it was shipped, it was shipped from quarters quite as dirty in the country.

So we decided on two plans,—one to try to clean up the cows and cow-stables and improve the storing and lower the temperature of the milk, and the other to open milk sta-

tions where milk could be obtained by mothers, together with the simple information that a nurse might give concerning the care of babies.

We believed that both of these plans would require years of labor before results capable of demonstration could be obtained, so, in 1897, we developed a plan of milk inspection designed to reach from cow to consumer and we opened two milk stations in vacant stores.

In the first season, working with but two stations and two nurses, with improved milk, inspected both in the city and in the country, with wide publicity from the newspapers, churches and other institutions, we found that a new demand seemed to be awakened in the city for the new knowledge concerning babies and their care.

Our infant mortality fell from one-third to one-fifth of all the babies,—under five years of age, born at term, and so it has continued for most of the season since, notwithstanding many difficulties and obstacles in the way.

When we first began our work we pasteurized our milk for the first four seasons. After that we stopped pasteurizing and endeavored to get clean milk from tuberculin tested cows. We do not grade our milk in Rochester, nor do we give to some of our people pure water and the others sewage infected water. There is no more reason why we should feed good milk to the children of rich mothers and dirty, pasteurized milk to the children of poor mothers.

We had the munificent sum of \$200 the first year we opened these milk stations, and yet I was asked at that time how much I expected to make.

We then planned a system of milk inspection. That plan, which has been spoken of, was perfected, and all of the milk that comes into the city now is tested by a milk tester, a Lorenz Milk Tester, and to the people that are interested in milk work and the conservation of public health through milk we present little cards and notify people to come to the health office where they may see the milk of every producer, not taken from the retail milk wagon but taken from the railroad or from the man that sends the milk in to Rochester, so the people can see how the milk comes into the city. Filtrates from that milk are exhibited on little cotton disks that are fastened on five by eight sheets of glass and those glasses are set in especially prepared card catalogues, so that one may see at a glance the character of milk supplied by every man who sends milk into the city.

The work of milk inspection has a curious effect on the dealer. I secured a copy of a letter and I will read it into the record. This letter was written on May 7th, after the milk

inspector had sampled the milk of this man. The letter says:

"The milk was sampled yesterday and found very dirty. Now, if you are willing to take four and a half cents for six months and four cents for six for such milk as that, why you may continue sending it. If not, we won't be able to handle it. I am forwarding copy sent us by inspector.

"Please let us know what you are going to do about it as soon as possible."

This letter is from the retailer of the milk to the man who produced the milk. Dirty milk, therefore, has a value even in Rochester.

When we first opened our stations, they were in parts of stores, in a school,—even in a police station. We had up to last year seven stations, and this year we are to have ten. These stations have been in schools for parts of three seasons. The location of the stations was selected with reference to the births in the neighborhood. A large map of the city is made, about 4 by 6 feet, and tacked out with births. It is also tacked out with deaths and we make "Child Welfare Stations," as we call them, just as the births increase in the neighborhood. We do not wait for the deaths to increase. The equipment of the station is practically as it was originally: table, chair, booklets in five languages,— "How to take care of the Babies," refrigerator and milk in quart bottles. Bottle-brushes, nipples and nursing bottles of various sizes are for sale at cost. The booklets are free.

We early found, as they found in New York, as Dr. Pisek has told you, it is altogether too expensive to put out modified milk to mothers. We use clean milk, in quart bottles.

The stations are open from eight to eleven in the morning every day during July and August, both for the sale of milk and for the consultations with the nurses.

To the stations with the greatest baby needs, two nurses are attached. One is on duty from eight to eleven, and visits the homes in that part of the district nearest to the station in the afternoon. The other nurse is on visiting duty in the district during the whole day.

We have one invariable rule in our work. No nurse is to enter a home unless invited by a member of the family and no nurse has yet found this rule to interfere with getting all the work with babies that she can do. We do not want the nurse to conduct a dispensary. We want her to go into the homes and to try to teach the mother what to do and to see that she does it. Of course, when babies become sick, the nurse immediately tries to get

the mother to allow her to take the baby immediately to the hospital and in many cases the mothers are sensible in letting the babies go. In round numbers, a thousand babies at once had care last year, and 76 of the babies were taken to the Infants Summer Hospital.

The real difficulty in much of this work of infant welfare is the getting of information to the mothers concerning the babies when the mothers do not really understand the need of the information. They think they know it all. The old story,— "I ought to know; I have buried seven" is true. To try to insist on breast feeding; to show the necessity for fresh air, clean food, clean nursing bottles and nipples, clean clothing and fresh air is the nurse's work.

The milk sold to the mothers at the Welfare Stations is only a means of attracting them to the station,—nothing more. This milk at the stations,—is it not really a confession of weakness on the part of the city? The city virtually says "The milk we sell, under license, is unfit to use because we do not enforce the law." Therefore, during July and August you must come to the milk station for milk.

Our Welfare Stations should be depots for the dissemination of knowledge relating to the baby, and not for the sale of milk. Every wagon that sells milk should, through its license, bear a guarantee of the purity of the milk, else what is the use of the license. The fact is we have only been playing at child welfare and the sooner we become seriously interested in it as a great moral question involving the health, morals and lives of our children, the future usefulness of the race, the better it will be for us and for our children.

Of course you know the old story,—I have told it often. American law isn't made to be enforced; it is only made to soothe.

Our Welfare Stations in July and August are only a step. This year we are going to embark on a new course. We have just been making a little experiment with the use of moving pictures, some of which we have taken ourselves, and this year we are going to introduce into our Welfare Stations, each one of them, moving pictures showing the whole history of the baby,—as it is taken sick, as it progresses through the illness and its recovery.

We want, of course, welfare stations all the year around. We talk about the reduction of infant mortality. One of the most important things, relating to infant mortality, is that question referred to by Dr. Pisek, of the enormous number of children that die in the early periods of life and the large number of premature births and of still-births. We say

that of all the babies that die under one year, one-fifth of these babies die under one month, and that two-thirds of these die under one week, and this enormous infant mortality should require us to do something more than we have to stop it.

We put our Welfare Stations in the schools. It saves rents and gets people into the habit of coming to the school station, and that we may link their work with the medical school inspection, with infant welfare, with prenatal and postnatal work; and we hope to make the school a health center with dental, eye, ear, nose, throat and general dispensaries,—a place where the child may be followed all the way from before birth, through the school and until it enters the field of labor.

This work is not only for the cities and towns, but it is for villages as well. We found it costs about \$200 per month per station, and that cost is so small, viewing the deaths and diseases of infants in all the cities and towns of the State that it seems almost like negligence for the towns and cities to longer do without them.

This, of course, is only near-infant-welfare, but it is a beginning.

INFANT WELFARE WORK IN NEW YORK CITY

BY JOSEPHINE S. BAKER, M.D.,

Chief, Division of Child Hygiene, New York City Department of Health

For the four years previous to 1908 in New York City the death rate of babies under one year of age ranged from about 160 to 164 per thousand; in the four years since 1908 that death rate has been reduced from 160 to 105 per thousand.

It may seem that Dr. Pisek and I are rather gloating over the rest of the State outside of New York City; but it is only because we want to show what can be done even in a city like New York, and that the work is not so difficult.

It is an interesting thing that, in the largest city in this country, a city having 135,000 births a year, with the most cosmopolitan population of any place in the United States, with the worst possible congestion of population, and poverty and ignorance in their worst forms, that, through the education of the mothers, it has been possible to save the lives of thousands of babies.

During 1912 in New York City there were 2,000 fewer deaths of babies under one year of age than there were in 1910. We have attributed this result to that rather common-

place and trite observation that "prevention is better than cure." It is of no use to try to prevent infant mortality by treating sick babies; the only way to prevent infant mortality and keep the babies well, is to keep them well.

In New York City throughout the year we have fifty-five Infants' Milk Stations. Last year these were conducted at a cost of about two dollars per month per baby, and the death rate in these stations was 2.5 per cent. During the summer months the nurses of the Division of Child Hygiene had under their care approximately 19,000 babies. Each baby was visited by the nurse every ten days and the nurse was held responsible for the condition and good health of the baby. If the baby were ill, the nurse reported that fact to one of the medical inspectors of the department, who went to visit it. The total cost of this kind of service was fifty cents per month per baby and among these 19,000 babies, the death rate was 1.4 per cent. If nothing but the matter of cost is considered, it can be seen that it is cheaper for the municipality to keep its babies alive than to let them die.

Now, the interesting thing about infant mortality work, as we have seen it so far, and the problem I believe we must face in the future, is that of changing our viewpoint a little as to the way in which we must prevent these deaths. For years we have looked upon diarrheal diseases as being the most important cause of infant mortality and we have talked a great deal about pure milk and about milk stations. I believe the Infants' Milk Stations have a big field of usefulness, but I do not believe that the establishment of these Infants' Milk Stations should take the place of a clean milk supply for any city. The stations should serve as educational centers, and the mother should be able to buy clean milk for her baby at any place near her home. In the prevention of infant mortality, education is 80 per cent and milk 20 per cent.

Nearly all the reduction in the death rate of infants has taken place in the diarrheal diseases because the diarrheal diseases are the easiest form to prevent. The methods used are instruction in the simple fundamental principles of hygiene and sanitation, the recommending and securing, if possible, of proper breast feeding or, if that is not possible, the furnishing of clean milk supply which may be fed in the proper manner to the infant.

With these facts in view, we must remember that, in the establishment of Infants' Milk Stations, there is grave danger that we may seem to accentuate artificial feeding and so lessen the amount of breast feeding that we might possibly secure.

INFANT MORTALITY

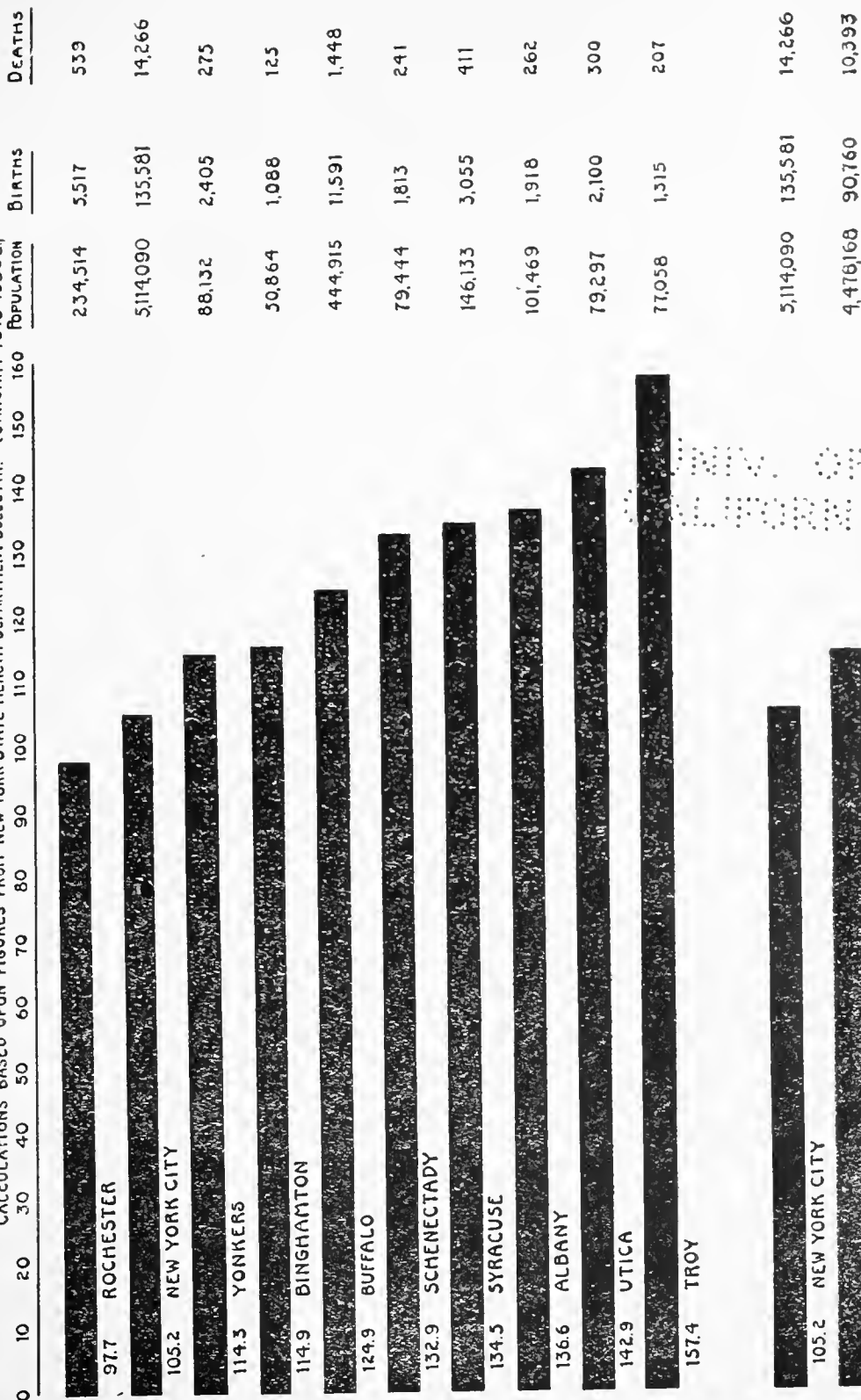
IN

NEW YORK STATE

1912

DEATHS UNDER ONE YEAR OF AGE FROM ALL CAUSES. RATE PER 1000 BIRTHS

CALCULATIONS BASED UPON FIGURES FROM NEW YORK STATE HEALTH DEPARTMENT BULLETIN. (JANUARY 1913 ISSUE.)

CALCULATIONS BASED UPON FIGURES FROM NEW YORK STATE BUREAU OF COMMUNITY DEVELOPMENT																			
0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	POPULATION	BIRTHS	DEATHS
																			
* 97.7 ROCHESTER																			
105.2 NEW YORK CITY																			
114.3 YONKERS																			
114.9 BINGHAMTON																			
124.9 BUFFALO																			
132.9 SCHENECTADY																			
134.5 SYRACUSE																			
136.6 ALBANY																			
142.9 UTICA																			
157.4 TROY																			
105.2 NEW YORK CITY																			
114.5 NEW YORK STATE (NOT INCLUDING NEW YORK CITY)																			

* DEATHS FROM PREMATURITY NOT INCLUDED.

At present, the diarrheal diseases, in New York City at least, do not rank first in importance as the cause of infant mortality. The most important causes of infant mortality at the present time are the so-called "congenital diseases." These deaths occur during the first month of life and amount to 35 per cent of the total deaths under one year.

Therefore I feel that our future work must be more and more educational, and more and more social, for the reduction of infant mortality is even more emphatically a social problem than it is a medical one. The success of our methods in reducing the death rate of infants shows that this is true.

In work of this nature, the Health Department and the health authorities of the large cities or of any towns or villages must be the center from which this work must radiate but I do not believe that we will ever get the best results until the health departments realize the importance of absolute cooperation with all other agencies in the city or town or village that in any way touch these problems. Such cooperation has been secured in New York City and the results have been of the utmost importance. About eighty organizations now cooperate under the name of the Babies' Welfare Association. This has resulted in the elimination of the delay in placing sick babies in hospitals; it has resulted in getting free milk for the babies from the relief societies without undue waiting; it has brought about a feeling of harmony and cooperation and a mutual interest on the part of the various organizations, and the result has been that we have had this marked decrease in our infant mortality.

I want to call attention to the accompanying chart. The lower line is Rochester, with a death rate of 97.7 per thousand. The next line is New York City, with a death rate of 105 per thousand; the next Yonkers, with a death rate of 114 per thousand; the next is Buffalo, with a death rate of 124 per thousand, Schenectady, with a death rate of 132 per thousand, Syracuse, with a death rate of 134 per thousand, Albany, 136 per thousand, Utica, 142 per thousand and Troy, 157 per thousand.

There is one important thing that we have learned in regard to education and that is that the mother herself must be the point of attack. We believe that, in the last analysis, the mother herself is the one who is going to save her baby.

In cities where nurses can be maintained, this instruction of the mother should always be obtained by personal visits on the part of the nurses and these home visits and instructions should be repeated over and over again until the mother thoroughly understands how

the baby should be cared for. In country communities or in small towns where the services of nurses are not available, literature giving methods in detail by which the baby should be kept well should be freely distributed.

Our work in New York City is entirely preventive in its character. We reach the mothers as soon as possible after the babies are born and instruct them how to keep the babies well. This work naturally falls into subdivisions:

1st: Home or district visiting of mothers by the nurses.

2nd: Infants' Milk Stations.

3rd: Mothers' conferences or lectures to groups of mothers.

4th: (Which I believe is one of the biggest features of our work) the Little Mothers' Leagues.

These were started about four years ago with the idea of interesting the girls of the public schools and teaching them how to keep the babies well. Last year we had about 230 of these leagues with a membership of over 20,000 girls. They were taught all the methods of baby care with the idea that they would themselves take better care of the little brothers and sisters entrusted to them, that they would take home the information to their mothers, and, most important of all, they would be better fitted to be the ideal mothers of the next generation.

The prevention of infant mortality is not difficult. I do not believe that there is another problem in public health work where we know what must be done and can follow out directions with more certain hope of results than in the matter of preventing infant mortality. New York City has shown what can be done for the reduction of infant mortality. There is no reason why any city in New York State cannot have as low a death rate as New York City. It is a case of arousing public interest in your undertaking and following a well-defined, simple line of educational work in the prevention of sickness.

INFANT WELFARE WORK IN SMALL CITIES

BY T. WOOD CLARKE, M.D.,
Utica

In behalf of the Independent Infant Welfare Organizations of the second and third class cities, I want to express to Commissioner Porter, and, particularly, to Dr. Shaw our thorough appreciation of this Conference. It certainly is we to whom the benefit is to come. It is the citizens of the second and third class cities that need information, and I particularly want to express our thanks to the ladies and



Mothers Waiting Their Turn - Babies' Pure Milk and Health Station



The Clinic—Babies' Pure Milk and Health Station—Utica

THE AMERICAN
LIBRARY



Interpretation of Babbitt's Milk Statement



Instructing Mothers in Milk Station—Utica



Keep the bottle
with an exit place
Ulica fresca bollita
every morning
The bottle must be
sterilized by boiling
in water for 10 min.
Before using the
bottle put the milk
in it for 10 min.
in water for 10 min.
Before using the
bottle put the milk
in it for 10 min.
in water for 10 min.

Leggete, o madri,
affinche impariate
ad allattare i vostri
figli.
Non fatele cumbre
o riccio di quaccio o
na laccia a fiesco mader
na polica e fiesco pas
cchi va da chi allatare
uovete bimbo.
Esso deve stare
almeno per duce
minuti in una setchia
o in un buccia d'acqua
calda e divesti alio
pore o si riprese appa
che il pancia e pancia
per acciari a beverio
non prima.
Per carita bollite il
latte e comprate qui

Leggete, o madri,
affinche impariate
ad allattare i vostri
figli.
Ri, soqua dargli il
cappuccio più tissimo
e non cibarell troppo ne
spesso ne fuor di orario.
Se cosa mai piangessero
fuor dell'ora in cui gli
dado del latte, dategli a
bere acqua bollita - ro-
frettata - e mente
altro.
In casi di diarrea
o scioglimento di corpo
non gli date latte ma
solamente acqua bollita
e non prima.

A Bu y Day of the Babes of Pop. Melli. ed. H. 1913.

gentlemen from New York who have come here to tell us what they have done.

For the past ten years while the societies and organizations of New York City have been grappling with the vital problems of the hygiene of our infant population and the municipal authorities have been growing more and more rigid in their sanitary housing and regulation of the inhabitants of cities of the second and third class, this State has been watching these associations and admiring the results and thanking a kind Providence that there was no necessity for such activities in our towns,—and thanking a kind Providence in every thing that they have done, with a few exceptions.

The result is that we have suddenly been awakened to the fact that we are in much the same position as New Orleans when she learned that instead of quarantining against Havana, that Havana was quarantining against New Orleans.

So, we have sat still and let New York City out-distance us in the race for health. We see the figures and we now know that the conditions existing in our cities are worse than any conditions existing in Manhattan Island, that we allow our poor to live in slums and hovels which would not be tolerated for a minute in the metropolis. We see tenement houses going up which would make a New York inspector groan, and we know that the best of our milk goes to New York City and, with a few exceptions, it is only that which is too filthy to be taken within the bounds of the greater city that ever reaches our mouths, excepting a small amount of baby's milk sold at a high price.

The final result of our inefficiency appears in the mortality statistics, where we learn that whereas in a dozen years, through labor and legislation, New York City has reduced the infant mortality rate from 191 in 1901 to 105 last year, whereas the rate in our second class cities is in Schenectady, 133; in Syracuse, 134; Albany, 136; Utica, 143, and in Troy, 158.

It certainly is an appalling thing that with all the smaller cities, where the inhabitants have the benefit of fresh air and fresh water,—that within such cities should exist such conditions as to make our death rate among infants a third and, in some cases half again as high as it is in that city for whose babies we have extended so much sympathy,—Greater New York.

What we want in these cities is an awakening and this is now coming. The new Housing Law and the Seeley Bill, already signed by our Governor, and the State supervision of milk, which we did not have in past days, certainly will in some form, produce results.

In the course of a few years our country cities may become as healthy places for the babies to spend their first and second summers as in that great city on Manhattan Island.

It is a blow to our pride to admit that we, having all the natural advantages of a country city at our doors, must try to improve ourselves to the health standard of New York City, but the sooner we face the fact, the better for us and thousands of unborn babies.

Now we are awakening to the true conditions, and what can we do to improve them? It is to decide this point that we have come here today.

A few of the things we can do are these: We can insist that the existing laws be enforced. We can carry on campaigns of education to show our citizens the conditions as they now exist, and to influence them to insist in the newspapers and, especially at the polls, on the needed reforms. We can demand that the local health boards pay more attention to babies and less to politics.

In the meantime we can do some things, now in our power, to care for the infant in our slums.

In considering the infant welfare work of the cities of the second and third class, and I am referring to the independent organizations, it must be remembered that the worker has to face a problem somewhat different from that faced in the metropolis. Not only do the small cities largely lack the facilities with which to work, charity organizations, associations, clinics, maternity hospitals and institutions, but the increased expense of carrying on the many philanthropic projects gives constant, material hindrance to any plans for raising funds for any new enterprise.

A new enterprise is generally unpopular. Any new enterprise in a small city must be run at the smallest possible expense for the first year and one must be satisfied with small results. The work being carried on at the smallest expense, must be confined to a limited locality. The efficiency once being demonstrated in a small way, however, funds are easily obtained.

I wish to describe an experiment carried on last year in Utica, not because we consider the results were startling, but because we believe that educational work will multiply results at a small cost. It may serve, however, as a suggestion to those anxious to make a start to get the big results. The inspiration was given to us by Dr. Goler in an address delivered before the Municipal League of Utica.

As a result, the committee was formed, and it has funds to support a visiting nurse for the infants of the Italian district. A printed

circular quickly brought in enough money for this purpose and on July 1st the schools came under the supervision of the Health Board, and the nurse was ready at all times to give her services.

The results were that in the first ten days she made two visits, and it soon became evident that the nurse alone could not reach the people, and I was asked to take charge of the work. In four day's time permission had been obtained from the School Board for the use of the Domestic Science room. Cards were printed, posters, in English, German, Polish and Italian, and freely circulated, mostly by the Boy Scouts, a good milk man was engaged to supply us with milk, and three additional physicians secured. In order to transform the Domestic Science room for our purposes, it was only necessary to remove a few gas stoves from the tables, obtain an ice box and have the ice box filled with ice, the ice being donated by the Utica Ice Company, and procure a small supply of milk. An Italian friend prepared large signs in English and Italian imparting advice to mothers. A few benches, some thin cloth and napkins practically completed our equipment.

The nurse was at the station each morning from 8:00 to 10:00 and sold milk at a cost of five cents a quart or three cents a pint. The milk account for the season balanced within seventeen cents.

A clinic was held three afternoons a week from 2:00 to 4:00, two physicians attending each session. The physicians' services are donated. Of the different cases, histories were taken. These were collected by the nurse after the clinic and taken by her afterward in her visits to the home. Our milk was one-half, one-third and one-fourth of milk.

The prescription blanks, I might say, were always sent to the physicians of the town, who were allowed to send any of their private patients to the nurse.

There was no child given milk who was not first examined and prescribed for at the station. At the home the nurse carried on the usual instructions in the matter of bathing, clothing and living.

The State Department of Health pamphlet was distributed widely. The station was open from July 10th to September 15th, a total of 68 days. The clinic closed on September 1st, after 23 sessions. It had to close at that time, as school opened that day.

The total was 210 babies and the total number of clinical visits 345. The total expense amounted to \$305, and the net expense was \$260.57. The expenses for the nurse were \$215, printing, \$17 and equipment \$28. To all this may be added the expense of running the clinic and milk station, amounting to \$45.

Those 210 babies were cared for at the cost of \$260, and the cost of each baby about \$2, or two cents per baby per day.

Except for seven cases brought to the clinic with disease too far developed for human aid, we had no mortalities.

For the coming season it is planned to open two or three milk stations, depending on the conditions, and one nurse will have charge of each station, and each station will have three visiting physicians and one superintendent, the physician in charge acting as superintendent.

We want to obtain small donations from those interested and a few large subscriptions.

The Infant Welfare Committee of Utica fully appreciates that this is but a beginning and it is far from adequate. We recognize the need of the milk station and of prenatal work. These we hope to obtain in the end. At present the city is not quite educated up to it, but we are striving to educate it.

DISCUSSION

Dr. JOS. C. PALMER, Syracuse: Last summer in Syracuse we employed our two school nurses to visit the homes of all new born babies and to instruct the mothers in their care and management. They were directed in the proper preparation of the baby's food and were told to report any acute illness that might occur to the nearest school physician.

This year we have the services of five school nurses who will carry on this work, beginning June 15th and continuing until early in September. A score card has been prepared which the nurses will take into the homes and record a score of the conditions as they find them. The score figures up when perfect, to 100 per cent. Homes that have a low score will be visited every second week, or oftener, and the homes of the better classes that would naturally rank high will be gone over lightly. There will be no hostile criticism in any of these visits and it will be the aim of the nurse to impress the mother that, in a friendly manner, it is her desire to aid her in the care of her baby in every way in her power.

We have divided this score card into four parts, namely: "The Home," "The Baby," "Caretaker," and "Feeding." I will not weary you with the various counts and percentages but will read a few of the headings.

Under "The Home" we score adequate room, sunlight, ventilation, screens, bathing facilities, flush closet, city sewer, cellar, yard, cleanliness and freedom from flies. Various values attach to these and the nurse will estimate what credit may safely be allowed in each instance.

Under "The Baby" what preventive for ophthalmia was used, weight, development, nourishment, general health, the stools, skin, scalp, eyes, deformity, appetite, umbilicus, proper amount of sleep, and so on. Symptoms of disease will be recorded and what remedy, if any, is being used.

Under "Caretaker" whether a mother, servant, or older child, whether clean, capable, careful, affectionate, methodical, industrious, teachable, patient, the amount of recreation, whether there is one child under six years of age per caretaker or more, the general health of the other children, and the method of caring for napkins.

BABIES AT MILK STATION CLINICS—YONKERS

	FIRST VISIT		REVISITS		Total	MILK SOLD	
	Sick	Well	Sick	Well		Small	Quarts
1912							
June.....	14	21	1	8	44	873	18
July.....	31	43	19	102	195	7,512	31
August.....	30	35	22	171	258	11,301	37
September.....	23	14	50	146	234	7,614	398
October.....	6	25	15	115	161	.....	1,080
November.....	5	24	14	124	167	.....	1,046
December.....	2	24	6	114	146	.....	1,080
1913							
January.....	7	38	11	138	194	.....	1,041
February.....	6	25	5	95	131	.....	966
March.....	16	28	14	119	177	.....	1,074
April.....	10	62	10	200	282	.....	1,119
May.....	9	57	19	217	302	.....	1,183
Total.....	159	396	187	1,549	2,291	27,300	9,073

HOUSE CALLS BY TWO MILK STATION NURSES—YONKERS

	Birth calls	Babies well	Babies sick	Babies improved	Not found	Visits co-operation	Total visits	Treatments	Mothers instructed	Milk modification taught
1912										
June.....		170	93	.....	7	4	274	?	153	.....
July.....		137	447	.....	16	12	612	?	225	.....
August.....		199	472	.....	32	43	746	?	267	.....
September.....		244	529	.....	27	45	845	?	211	59
October.....		384	422	.....	24	40	870	11	122	42
November.....	27	289	274	98	14	63	795	87	161	38
December.....	189	239	142	141	35	55	801	54	269	34
1913										
January.....	304	232	198	155	65	57	1,011	153	356	45
February.....	88	233	182	186	9	68	766	131	252	47
March.....	129	312	189	182	11	102	925	119	372	58
April.....	233	254	200	159	19	71	936	103	515	36
May.....	138	242	161	213	19	76	849	124	430	34
Total.....	1,108	2,935	3,309	1,134	278	636	9,400	782	3,363	393

Under the "Feeding" whether or not it is maternal feeding. Under this heading the total for feeding amounts to twenty-nine, and for breast feeding, a credit of twenty is given with different smaller percentages for the various methods of artificial feeding.

We hope in this way, by telling the mother the value of her score and interesting her in her credits, to be able to arouse in her a desire to improve her conditions and to add to the value of her score.

Mrs. FRANK W. THOMAS, Troy: I have been asked to speak upon child welfare as I have seen it in our playgrounds. It was my privilege to found the playground work in Troy with the assistance of our mayor and good women seven years ago. I have seen many of the older girls carrying in their arms their baby brother or sister. I have seen the nursing bottles covered with flies and taken them up and found the milk sour. I wonder the babies live, and many do not.

I am going to help solve this problem this summer by taking a class of these girls every Saturday afternoon on my own grounds and teach them the proper care of a baby, to tend it, to care for milk, the nursing bottles, the care of the mother when ill, how to arrange a tray for the sick room with inexpensive articles; also to cook simple foods. We are going to have a life-size baby doll for the girls to handle as they will remember better.

Troy is a large manufacturing city where many of the shops employ women who are the bread-winners. Some are mothers who stop working just long enough to have their babies, then the mother returns to work and the older daughters become the little mothers. It is some of these girls I wish to help this summer and I hope some of the ladies here will take the thought home to their own playgrounds where the work can be done if there is a building upon the ground where one can retire from the press of the children.

Dr. S. JOSEPHINE BAKER, New York: In May of each year the school medical inspectors give a lecture in each of the public schools on "The Care of Babies" to all girls over twelve years of age. After the lectures we ask the girls to volunteer to become aids of the Department of Health in saving the babies. Most children like to volunteer and this particularly appeals to their civic pride. The children are organized into separate leagues and elect their own president and secretary, the school doctor and school nurse serving as honorary president and vice-president. Meetings are held weekly during the summer, either at the milk stations or at the schools, and the girls are taught the simple requirements of baby care. In addition, they are required each day to do some one act to help a baby and to keep a diary of these incidents. We have always had a great deal of interest manifested in this work and the leagues have been a success. I believe, however, that this is work that the Department of Education should do; I believe that the teaching of infant hygiene should be a part of their regular curriculum, but until boards of education are ready to teach this important subject in the schools, it seems to me that the boards of health and independent organizations should take up this task because in this work lies one of our most important measures for the prevention of infant mortality.

Dr. L. V. WALDRON, Yonkers: Last year, 1912, was the first we have had milk stations. Co-operating with the Bureau of Health, the Yonkers Milk Committee, by the aid of the two milk stations, reduced the mortality per thousand of population dying of diarrheal diseases, under two years of age, from 1.2 to .8, or 33½ per cent. in one year. This reduction brought our death rate from all ages down, as you will see from this chart, that being the indication of diarrheal diseases.

We have also reduced our infant mortality from 171 in 1907 to 114.3 in 1912. We have two nurses to attend not only to the babies who come to the station, but those who are reported by any doctors in town who have diarrheal cases under two years of age.

These nurses between June 1, 1912, and June 1, 1913, made 9,400 house calls. During the first month, June, that the milk stations were opened they only made 274 calls. People were afraid of them, but it quickly jumped up to 800 and 1,000 per month.

After the summer season was over, they began making birth-calls. The child's name was sent to the milk stations from the birth certificate at the Bureau of Health. The nurse then made a call after the nurse or midwife had gone answering questions and giving general instruction to mothers and getting track of weak or sick babies. They made in seven months 1,100 calls.

Also, after the summer months were over, we began teaching the home modification of milk, and during the winter months they taught 393 mothers the home modification of milk.

Dr. PISEK, New York: The baby health contest, as it is known, has a field of usefulness. Through bringing the fine or abnormally fine children, they give you the opportunity to bring to your attention children who need care, who need supervision, who need preventive measures before the school age.

That is the important part of the work and not the fact that we shall find certain babies that are particularly fine specimens of development, mentally and physically; a certain number of these children will be turned down and have low scores—comparatively low scores, for other things. This can be shown to the mother. She can be instructed in how to prevent and how to care for certain deformities that are beginning and are in their inception and, in that way, you are really doing a work that is of value.

Furthermore, it will reach children from the second year to the fifth year or the sixth year, that it is impossible to reach in any other way.

It also opens another field and that is the collection of scientific data at this time of life. Measurements of a group of children between the second and fifth year of life, which a physician finds very helpful. If, through these contests, we are able to collect reliable statistics of several thousand children, we shall then have a set of tables that will be standard for children of different age periods. The Baby Contest must not be looked on as a baby show or as some circus but as a real field for preventive work.

Dr. THOMPSON, Cornwall: I want to emphasize a point brought out by Professor Foord with reference to encouragement by comparison. He was using, I think, a test tube to show the difference in the amount of sediment in the milk.

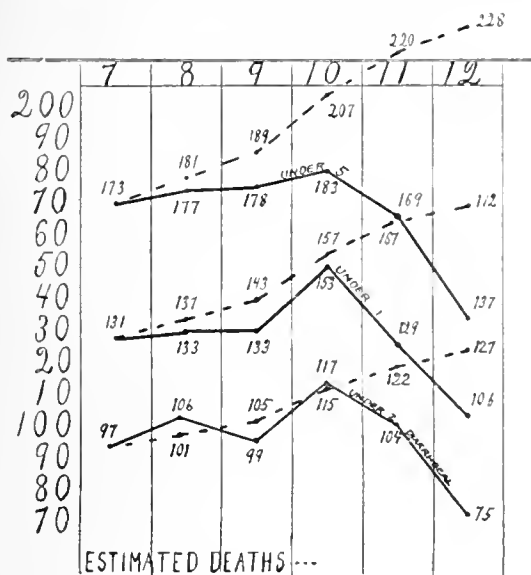
In our section is a man who is known perhaps throughout New York State as an authority on the subject of dairying in general, John H. Finley. I visited his dairy twice and when I was there his stable, the top and side walls were as white as any paper we have on our desk simply through keeping it white-washed, and everything up to standard. I am giving you the exact idea of what I saw. Cleanliness of quarters is essential to purity of product. In visiting in that part, I used it as a comparison, it being the best dairy for comparison, so that those who were furnishing milk to our village might have a well kept dairy for comparison.

I believe that in every section we can find some man whose product is better than the ordinary and by calling attention to the first-grade producer we are able to make a higher standard, generally.

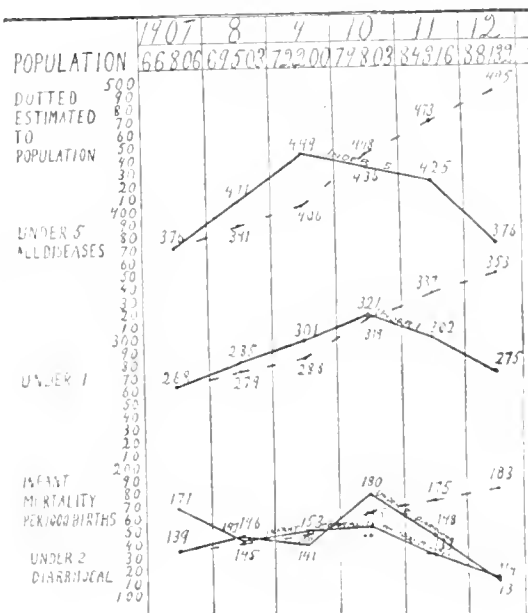
Dr. H. H. CRUM, Ithaca: I want to emphasize the attitude we ought to take in examining dairies,

INFANT MORTALITY STATISTICS—YONKERS

MORTALITY JUNE, JULY, AUGUST, SEPTEMBER
UNDER 5 ALL DISEASES, UNDER 1 ALL DISEASES, UNDER
2 DIARRHEAL



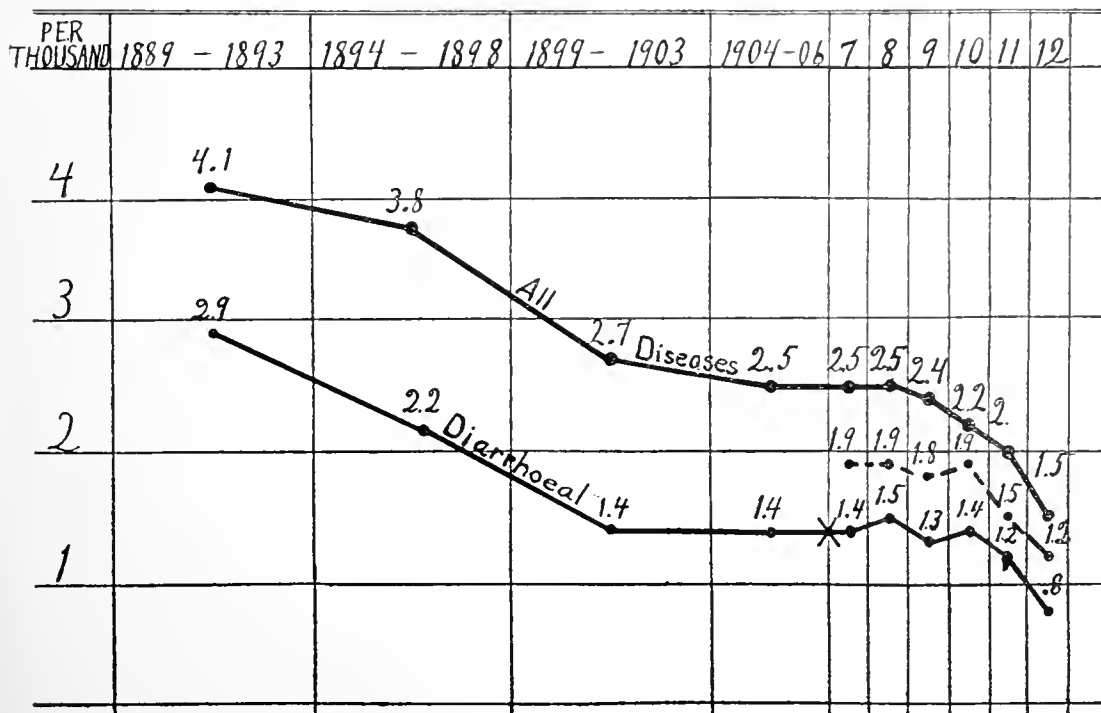
MORTALITY FOR YEAR



JUNE, JULY, AUGUST, SEPTEMBER

DEATHS UNDER 5 PER 1000 POPULATION } ALL DISEASES
DEATHS UNDER 1 PER 1000 POPULATION }

DEATHS UNDER 5 PER 1000 POPULATION, 1889-1906, UNDER 2, 1907-1912 DIARRHEAL



using Ithaca as an example. We have no difficulty in examining every cow that furnishes milk to the city. There is no friction between the health department and the farmers. We have been at it for a number of years and I think I am right in saying we have the best inspected dairies as a whole in the State of New York.

A careful physical examination is made of each cow. This examination is not a cursory one but an examination of every part from tail to nose. A stethoscope is used and the inspector is an expert veterinarian. The bad animals are eliminated and the farmers co-operate. The farmers are glad to co-operate when they are shown. If there is antipathy between a health official and the farmers, instead of turning the matter over to the Department of Agriculture, I think it would be better for the health official to change his attitude or methods. We have had splendid results. I think we have the ideal system.

I would like, also, to speak of the impression given here to-day in regard to infant mortality in the small cities of the State. Ithaca, Geneva and Cortland were not mentioned, but I want to suggest that you will find these cities very near the top. Ithaca has a lower infant mortality than any city mentioned here to-day. Our good milk is reflected in this low rate. We are solving the milk inspection problem. I believe also that Geneva and Cortland are caring for their dairies and have respectively a low infant mortality.

Dr. H. J. BALL, Cortland: In regard to the subject of poor milk, we had an epidemic in the city of Cortland, commencing on the 23d of April, lasting thirteen days, in which we had 416 cases of septic sore throat. We traced 72 per cent. of the cases directly to the milk from one milkman and we found in his dairy two cows with mastitis or garget, and as soon as the milk from that dairy was stopped and the utensils sterilized, our epidemic stopped.

That was a very serious epidemic. Whether the epidemic was of bovine or human origin, has not been determined, as one of the farmers had had an infected hand; but as soon as we compelled the milkman to use other milk and to sterilize all utensils, the epidemic stopped.

In regard to infant mortality, I am not familiar with statistics, but when the call for this meeting was made, I looked over the records of the city of Cortland for the past seven years, and found that the deaths under one year of age for that period were 165. I tried to tabulate the causes of death, but found it impossible, on account of the indefinite manner in which the certificates were made out. Good bookkeeping is necessary to the success of every enterprise, and if we are to get information which will point to the cause of infant mortality, not only will it be necessary for the doctors to be more definite, but the Public Health Law should be so amended as to require the registrar of vital statistics to be a physician.

It strikes me, from what little experience I have had, that to reduce infant mortality, we must instruct the mother during the prenatal condition, because, of these, 165 deaths of infants under one year, one in five (20%) was due to premature birth.

Dr. LAUGHTON, New York: Can you tell me whether the cows had been tuberculin tested?

Dr. H. J. BALL, Cortland: The cows in this herd had not been tuberculin tested.

As to the man's business: Previous to his selling milk in the city of Cortland, he had been selling milk to the New York Dairy Demonstration Company, and was receiving ten cents a can extra because of low bacteria count—less than 10,000—but as soon as he discontinued selling to the New York Dairy Demonstration Company, he went back to the old methods, using a large top pail and stopped washing the bag and udders.

We have no dairies selling milk to the city of Cortland that are tuberculin tested.

Dr. KREUSI, Schenectady: The city of Schenectady had one of the highest rates among second class cities up to last year, when we went to one of the lowest places among second class cities. That was due to our putting a poor, annoying inspector off and putting in a very careful, trained, energetic young man, who encouraged the city to get a maternity nurse for all work in training mothers.

The city is just attempting a so-called milk station. It is to be a depot run on the lines of the New York stations. We are not going to use modified milk. We are going to have a milk supply and it will be normal milk and we will show how to modify it, if necessary, but always letting the mothers take care of the matter and advocating to the mother's breast feeding. We were at one time the largest dispensers of modified milk in the country and we learned through it that we ought not to do it, so we lay the emphasis on educational work.

The city has now only one maternity nurse to every 10,000 population but we expect to have one nurse to every 2,000 population. The maternity nurses and other nurses ought to regard themselves as teachers and not as dictators.

Dr. Goler and Dr. Fronczak have given us a good idea in telling us that they have fought the selling of the long tube feeding bottle. We published a list of poisons for babies, in which we had the well-known syrups and soothing syrups and we published, in parenthesis, the poisons in which codien appeared or the modifications thereof. We were immediately condemned and some people withdrew their subscriptions, but now the man who is selling those things has a black eye.

Dr. T. WOOD CLARKE, Utica: The infant welfare work of Utica started as a private philanthropy. Several cities are now starting milk stations under the local boards of health. I hope they will be most successful. I think the experience of New York has shown that as a rule, at least, it is better to start such work privately. First one should make good in the work and arouse the popular demand that it be carried out efficiently. Then one can call on the city fathers to supply enough money to enable the Board of Health to take over the work and carry it through as it should be done.

There is one point of which Mrs. Thomas spoke to which I wish to call attention, namely, the teaching of motherhood to young girls. I believe that this is one of the best things we can do. The ordinary factory girl, who marries directly from the factory, is lamentably ignorant of all that is needed to care for a home properly, and knows nothing whatever about the care of children. If a girl wants to become a dressmaker, she spends months or years learning her trade; if she wants to be a stenographer she studies for a year for that; if she is to become a nurse, it is a matter of three years' preparation; but if she wants to undertake the most important and the most difficult of all the professions, that of motherhood, she simply picks out the man who suits her fancy, and trusts to a divine Providence to give her the technical knowledge required if she is to perform her duties properly when the baby comes. This matter of teaching the girls motherhood should be promoted as much as possible. There is nothing immodest in a girl, be she married, engaged, or merely in hopes, learning all she can about maternity, and the care of the child. Such teaching should be as widespread as possible. There is one organization rapidly spreading over this country which is endeavoring to do this, the Camp Fire Girls, the new society which corresponds to the Boy Scouts among the boys. These girls all have instruction in home making and in order to obtain promotion they have to show a knowledge of "the chief causes of infant mortality and what one com-

munity is doing to reduce it." As I have been talking to the Camps in Utica I am familiar with the work. The Utica Camp Fires are made up, some of cash girls, some of girls in the knitting mills. These girls attend the health lectures and bring their friends. It is at this time that the most can be accomplished in teaching the girls infant hygiene. It is not necessary to wait until they are pregnant before they learn the principles of the proper care of the baby. We cannot begin too early.

G. H. TUCKRELL, M. D., Smithtown: The previous speakers have made it clear that the whole question of work for child-welfare is primarily one of education—education along three lines: of the mothers, of the general populace, and of the milk producers and dealers. The successful educational methods and movements in the past have been such as to awaken the interest of the pupil. They have produced a willingness to learn on the part of the instructed. And just so must we furnish an incentive in our child welfare propaganda.

This is even more difficult in the country than in the cities. Rural communities are naturally conservative. The adventurous and more progressive minds have migrated to the larger centres of population. The influence of the press is not so great as in the cities; civic pride is less, indeed often non-existent; there is no organized charity with its paid trained workers; and above all there is very little money for any work of this kind. For these reasons the "creation of a sentiment" in a rural community is very difficult, and its growth is extremely slow. The mothers of course have the natural interest of wishing to save their babies, but it is difficult for the individual teachers, usually the family physicians, without organization and without resources of either time or money, to change life-time habits—habits indeed that are almost racial in character.

In the case of the farmer and the milk dealer, in the absence of any pronounced public sentiment for better methods, it is even more difficult to get them to be willing to learn. The town of which I am health officer contains a number of small villages with scattered populations of not over four or five hundred in the largest. There is no dairying interest. All of the milk produced is consumed locally. In fact there is not milk enough produced to supply the demand. Milk retails for from eight to ten cents a quart, usually nine cents, when delivered; and this is milk of very ordinary quality as regards cream content, and very poor quality as regards bacterial content. Milk delivered one day can rarely be used for breakfast the following day during the summer; often not in winter.

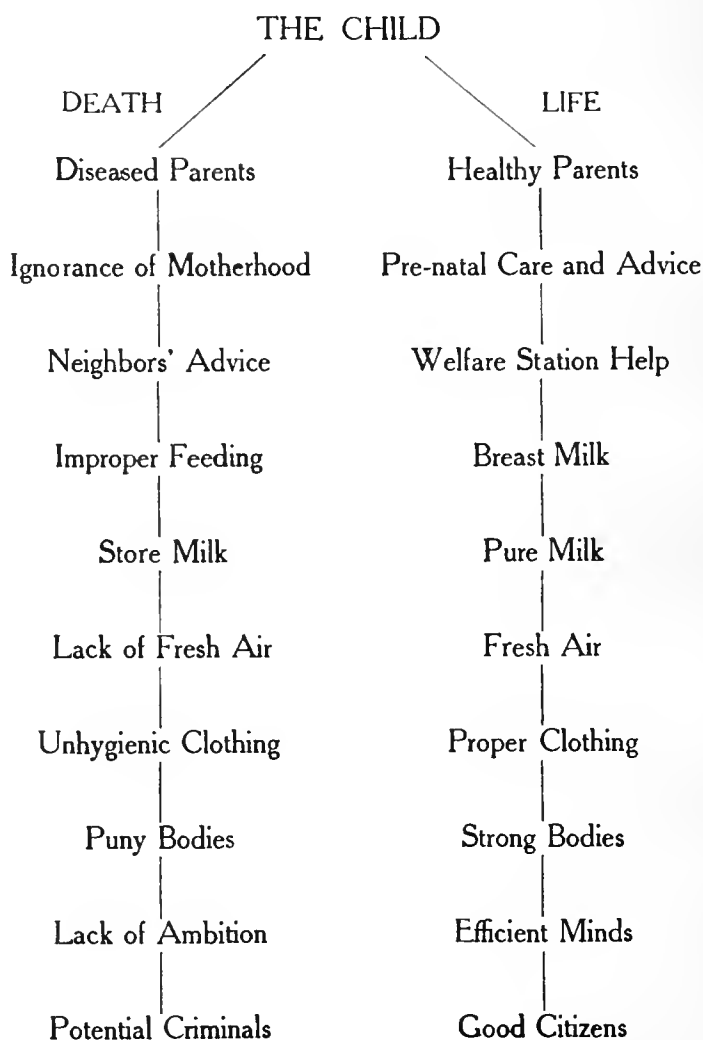
There are hundreds of communities in our State similarly situated, communities in which there is no incentive for the milk dealer to furnish milk of high quality either in respect to cream or to bacterial content. I am convinced that the solution of the

pure milk problem, at least in rural communities, does not lie in dairy inspection, for most of the milk is furnished by small producers having only one or two cows. Certainly most of us have failed in our attempts to bring about better methods of caring for the milk by the small producer. I know what the farmer says after I have left: "Oh! Doc is a good fellow, and he means well; but he has germs on the brain, and he does not earn his living at farming." Dairy inspection does not necessarily make the farmer willing to learn, or furnish an incentive to produce clean milk. An inspected dairy may still produce impure and contaminated milk, and the un-inspected dairy may sell its contaminated milk to whoever will buy.

The Public Health Council, under the recently amended Public Health Law, has authority to establish standards for the bacterial content of milk, and to penalize the sale of all milk below an established standard. If the Council should enact that milk containing more than a certain maximum number of bacteria should be subject to confiscation and the seller liable to fine or even imprisonment for repeated offenses, there would at once be an incentive for the dealer to furnish pure milk. He would then be willing and eager to learn, and his education would be self-conducted, with little more aid from the health department than the furnishing of information through the publication of one or more bulletins, dealing with the essentials for the production and care of pure milk. The main expense would be the provision for the examination of samples of milk. For this purpose each health officer should be provided with sterile milk containers and outer cases for packing them in ice during transportation to the laboratory. There should be at least one laboratory in each sanitary district, or preferably one in each county, where bacterial, or foreign body contamination of the milk should be estimated, and a report sent to the health officer. Every person who sells milk should be compelled to register at the local board of health, and all dealers should be compelled to secure a license and to furnish the name of every producer from whom he buys milk. Samples of milk should be examined periodically, and upon complaint or suspicion of the sale of milk below standard.

We in the country are divided into small communities, we are without effective organization, and comparatively without resources. We, therefore, need the help of the central authority of the State, if we are to make headway in this campaign for promoting the health and saving the lives of our children. If you withhold this help, you must not reproach us if our annual death rate does not grow less. But give us this help, and but a little of the enormous sums commanded by our great metropolis, and we shall have no infant death rate at all. We shall all die of old age.

The Reason for Infant Welfare Work



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